# MOTHER AND CHILD

## A MAGAZINE CONCERNED WITH THEIR HEALTH



Volume 1 Number 1



JUNE 1920

PUBLISHED BY
THE AMERICAN CHILD HYGIENE ASSOCIATION
BALTIMORE

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Published by the American Child Hygiene Association
1211 Cathedral Street, Baltimore, Maryland

VOL. I JUNE, 1920 No. 1

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Application for Second-class Rates Pending.

# Program Of The American Child Hygiene Association

## AIMS

1. To continue our efforts to arouse the interest of individuals and communities in definite, comprehensive work for the welfare of mothers and children.
2. To co-operate in every possible way with existing private organizations in attempting to meet all problems of maternal and child welfare.
3. To assist all governmental agencies, local, state and national, in promoting and carrying on their maternal and child welfare work.
4. To help create public sentiment through organized effort, for the establishment of state and municipal divisions of child hygiene.
5. To promote the education of the lay public concerning the health of mothers and children.

## ACTIVITIES

1. **Local Studies.** To assist in making careful studies of state and local needs for child welfare, especially during the pre-natal, neo-natal, post-natal and pre-school age periods.
2. **Formulation of Working Plans for Child Hygiene Work.** After thorough study of the local needs and assets, to suggest constructive plans for maternal and child welfare work, with special efforts to strengthen co-operation between existing organizations, and to co-ordinate the work so that it may be complete and without wasted effort.
3. **Demonstration of the Possibilities of Constructive Activities and Assistance in their Promotion.** (a) By helping maternal and child welfare agencies to adopt comprehensive programs suited to the needs of individual communities.

   (b) By encouraging the establishment of child welfare activities as integral parts of health centers and the employment of public health nurses trained in child hygiene.

   (c) By attempting to interest physicians and dentists in maternal and child welfare work.

   (d) By demonstrating the need of extension of maternal and child welfare work in rural communities and by arousing interest in these rural districts, in the prevention of the accidents and diseases of maternity, infancy and childhood, through travelling health centers.
4. **Co-operation with other Organizations.** By spreading knowledge of the programs of other organizations engaged in special phases of child welfare without wasting effort by duplicating their work.

# Address On Neo-Natal Mortality

*Frederick A. Packard Lecture of the Philadelphia Pediatric Society, February* 10, 1920

Sir Arthur Newsholme, K. C. B., M. D., F. R. C. P.

WHILE I highly appreciate the honor of giving this Packard Lecture to the Philadelphia Pediatric Society, I realize the impossibility of making any medical contribution to your specialty, and the necessity of limiting myself to the public health aspects of my subject, in which I have for many years been concerned. I also appreciate the difficulty arising from the fact that my remarks relate to obstetrics more than to pediatrics. Although I do not venture to define the line of demarcation between these special branches of medicine, much of the success of the work of pediatrics depends on the normality of the expectant mother and of the unborn infant, not only in regard to mental development, but also more generally; and the conditions likely to aid in securing normal birth and adequate skilled care in the first weeks after birth are of vital interest to you.

Among the outstanding events in the medico-sociological history of the last fifty years a foremost position must be given to the steady decline of the birth-rate which has occurred in most civilized countries, and to the increased attention devoted to the welfare of infants and their mothers.

## Birth-rate in relation to infant mortality

It would carry us too far afield to discuss the lowered birth-rate, and its relation to the decrease in infant mortality. Let me, however, make the following categorical remarks which may partially counterbalance the statements often made on this point. In districts and countries in which no reduction of the birth-rate has occurred, infant mortality has declined. In countries in which both rates have declined, the birth-rate (as in England) was declining steadily for over 20 years before any decline of infant mortality began; many districts with a low birth-rate have a high infant mortality-rate; and although a large family, especially if not adequately spaced, may mean impoverishment and poverty of parents with neglect of children in essential respects, there is no reason to think that a correspondingly large family under improved social conditions would be otherwise than favorable to a healthy and ideal family life.

The lowered birth-rate has undoubtedly been one of the factors leading to recent activities to secure the preservation of child life. The single statement that in England and Wales 9000 fewer births took

place weekly in 1914, before the effect of the war began to be felt, and that in the whole of that year about a half million fewer births occurred than would have occurred if its population had experienced a birth-rate equal to that of the year 1876, serves to remind us that although in England our growth of population by excess of births over deaths still amounts to 1 per cent per annum, we are approaching, unless the course of events is changed, a period when natural growth of population will cease, and England,—and I may also add America,—will be dependent on immigration for further increase of population.

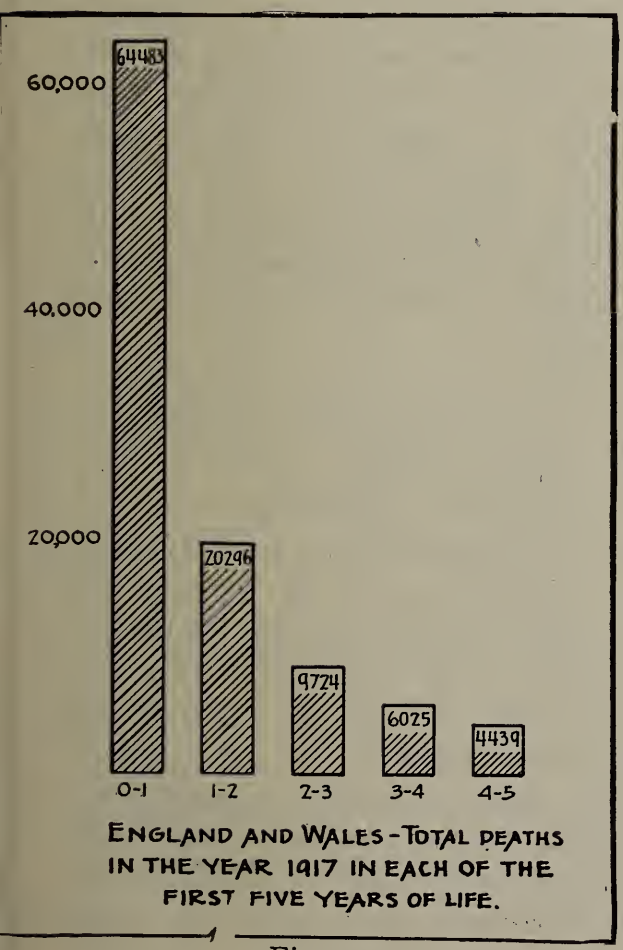
In passing from this aspect of the subject, it is not inappropriate, in view of the fact that the child is the wealth of the future, to recommend the avoidance of "the sad heresy of celibacy" (Punch), and the contracting of early marriages, especially by those who now disproportionately avoid them, as necessary not only in restoring and maintaining the success of family life, but also in securing the same standard of sexual morality for both sexes, and in avoiding the ravages of gonorrhea and syphilis, two of the greatest enemies of child life and of maternal health.

Dr. L. Emmett Holt* in an interesting historical sketch of infant mortality has drawn attention to some of the more important motives which have led to the increased attention which has been given to this subject in the last forty years. In France, which led the way in respect of the day-nursery, of societies for encouraging maternal nursing, and of *gouttes de lait,* the failure of the population to increase undoubtedly had great influence in securing action. In England attempts at controlling infant mortality began on definitely public health lines. But it was not until 1902 in England that a definite and continous reduction in infant mortality began; and in the production of this result a large share of credit must be given to the "concentration on the mother and the child" which has been a striking feature of the last twenty years.

It is chiefly during the last ten years that action has extended toward the point at which logically it ought to have begun; and organized effort on a considerable scale has been made to protect the infant by ensuring the welfare of the mother during pregnancy, in her confinement, and during the lying-in period. The Midwives Act was passed in the year 1902, and following this the use of unskilled women as midwives was gradually stopped, and every midwife was subjected to supervision and control and to withdrawal from practice if malpractice occurred, or if medical aid was not called in for abnormal parturition. The active

* American Association for Study and Prevention of Infant Mortality. Transactions of the Fourth Annual Meeting, 1913.

educational work in infantile hygiene, the visitation of mothers by health vistors, the gradually increasing use of health centers, have occurred during the same period, and in this and other ways there has been increasing effort to restore to its former integrity, family life, which has been seriously encroached upon by the conditions of town and industrial life. It is not one of the least of the valuable by-products of the calamitous World War that it has done much to restore the status and ideal of Motherhood and to make us realize that on this depends the future well-being and happiness of mankind.



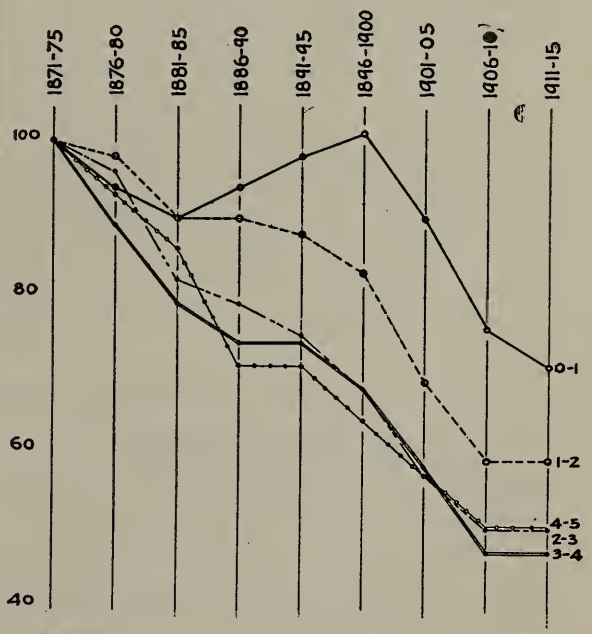

ENGLAND AND WALES - TOTAL DEATHS IN THE YEAR 1917 IN EACH OF THE FIRST FIVE YEARS OF LIFE.

Fig. 1

In considering infant mortality we first of all think of it as part of general mortality at all ages. The primary objects of preventive medicine are to transfer as many deaths as possible from the earlier to the later periods of life, to prevent the larger mass of non-fatal illness which, from the point of view of the community is even more serious than early death, and to raise the general standard of health of the population.

We scarcely realize the difference between the number of deaths in each of the first five years of life. This is shown graphically in figure 1.

Figure 2 shows how much more slowly mortality in infancy has been brought under control




ENGLAND AND WALES - RELATIVE DEATH-RATES FOR EACH OF THE FIRST FIVE YEARS OF LIFE IN QUINQUENNIAL PERIODS FROM 1871-75 TO 1911-15, THE DEATH-RATE AT EACH AGE-PERIOD IN 1871-75 BEING STATED AS 100.

Fig. 2

than mortality in the next four years of life.

In view of the commonly entertained error that infant mortality may on the balance be selective in character, securing survival of the more robust, it is noteworthy that the parts of England which have the highest infant mortality continue at higher ages to experience a higher death-rate than more favored districts. Any possible elimination of the weakest by natural selection which may have occurred, is accompanied to a preponderant extent by the manufacture of weaklings and by an excessive death-rate at older ages, due to continuance throughout the whole of life of the evil conditions which caused the excessive infant mortality.

From the economic standpoint attack on infant mortality offers abundant scope for action. Here is a period representing about one-eightieth part of the whole life; but in this period one out of 9 or 10 total deaths occurs; furthermore, the state of health in infancy in large measure determines the health-standard of the whole of life.

From the same standpoint, the mortality under one month, first described by Ballantyne as neo-natal mortality, also is especially important. At least one-tenth of the total deaths at all ages occur in infancy; one-half of these infantile deaths occur within the first three months, one-third within the first month, and one-fifth within the first week after live birth.

If, therefore, it were practicable to halve these early or neo-natal deaths, a greater saving of life could be obtained than by halving the death-rate at any other period of life of equal length. There is ample work for further preventive measures against infant mortality in the last eleven months of the first year; but the most fertile and least tilled soil is that of the neo-natal period.

In view of the commonly made statement that infant mortality during the first month is chiefly due to developmental conditions, and is practically beyond control, let us examine mortality in this period more closely.

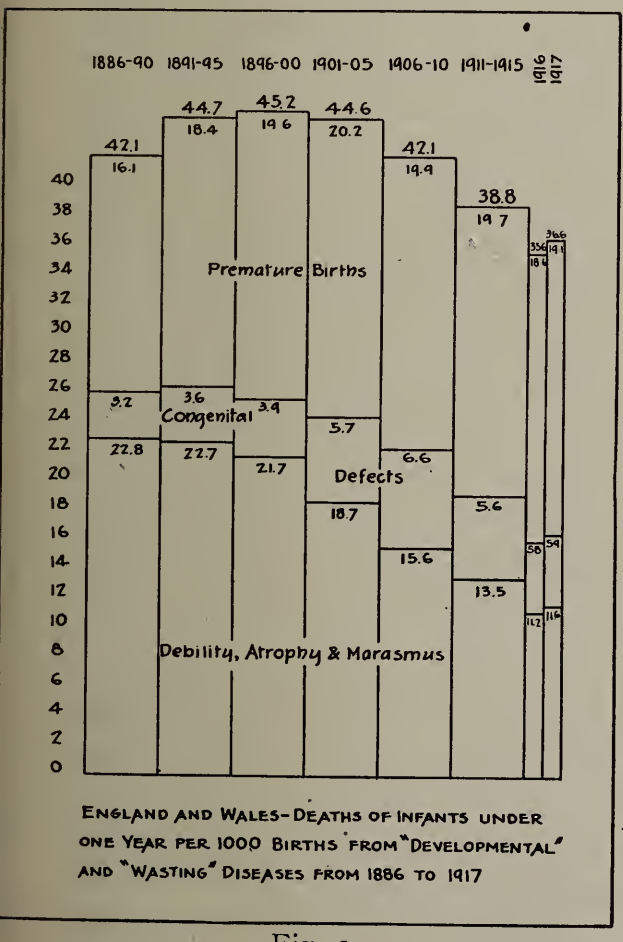
In figure 3, the share which developmental and wasting diseases have in causing total infant mortality is shown. It will be noted later that it bears a very varying part in different countries of England. In this diagram, the above group of diseases includes deaths from

Premature birth
Congenital defects
Injury at birth
Want of breast milk
Atrophy, debility and marasmus.

I have purposely grouped all these together, because of the unsatisfactory certification of causes of death of infants dying in the earlier weeks of life. Throughout the whole of infancy, medical certification of deaths is much less satisfactory than for deaths at any subsequent age; and it is of but little use to advise physicians to be

more accurate in their certificates until we have more exact pathological knowledge of the causes of early infant mortality. Some valuable research work has been done in this field; but it needs to be greatly extended; and such work would doubtless add greatly to our armamentarium against early infant mortality.

In an official report I have analyzed the above group of causes of death further, and it appears that nearly 90 per cent of the deaths from premature birth and congenital defects, and about 40 per cent of the deaths from atrophy, debility and marasmus occur in the first month after birth. It appears further, that there has been much transfer of certification between these various headings, and that it is probably not therefore justifiable to infer, as has often been done, that the mortality from premature birth has increased in recent years.




ENGLAND AND WALES—DEATHS OF INFANTS UNDER ONE YEAR PER 1000 BIRTHS FROM "DEVELOPMENTAL" AND "WASTING" DISEASES FROM 1886 TO 1917

Fig. 3

## NEO-NATAL MORTALITY NOT IRREDUCIBLE

We are on safer ground when we base our conclusions on total deaths in the first week, and in the first month after live birth; and in view of the accurate registration of births and deaths in England, I may be excused for taking illustrations from past official English reports.

The facts set out below give an effective quietus to statements that neo-natal mortality is practically irreducible.

The figures from my official report on Infant and Child Mortality (Cd. 5263), which gives death-rates for the year 1908, show the relative proportion of mortality in different parts of infancy, and the neo-natal mortality in different areas.

**Infant Death-rate per 1,000 Births**

| | Under one week | Under one month | Total under one year |
|---|---|---|---|
| England and Wales... | 24.3 | 40.3 | 120.4 |
| County of Durham.... | 33.8 | 52.1 | 151.0 |
| County of Glamogan.. | 24.8 | 46.1 | 154.3 |
| County of Hereford... | 18.2 | 31.2 | 75.8 |
| County of Oxford.... | 20.9 | 30.6 | 73.0 |

**Infant Death-rate (Highest and Lowest) Per 1,000 Births, Among**

| Infants in 1st week after birth | | Infants in 1st month after birth | |
|---|---|---|---|
| Highest | | | |
| Workington | 41.4 | Workington | 61.0 |
| Dewsbury | 41.4 | Blyth | 58.0 |
| Batley | 37.5 | Batley | 57.7 |
| Bransley | 31.2 | Dewsbury | 56.7 |
| Bradford | 30.7 | Aberdare | 49.4 |
| St. Helens | 30.3 | Walsall | 49.3 |
| Lowest | | | |
| Doncaster | 19.7 | Guildford | 29.4 |
| Edmonton | 19.1 | Holbom | 28.0 |
| Crewe | 19.0 | Penge | 27.2 |
| Heywood | 16.9 | Walford | 25.9 |

We may then rest assured that neo-natal mortality varies greatly in different communities. It varies also greatly in different sections of the same district, whether it be urban or rural. There is no reason to assume that there are any such general variations in the vitality or physical efficiency of mothers, as will explain these differences; and we must, I think, conclude that a large share of the loss of precious lives shown above is caused by removable influences, post-natal, as well as natal and pre-natal.

Doctor Stevenson, in the English Registrar-General's Annual Report for 1913, has given data from which it can be inferred that in England and Wales, nearly 25 per cent of the total births occurred under circumstances involving a sacrifice during the first month after birth of nearly 50 per 1,000 of the infants born; while for over 2 per cent of the births, the corresponding sacrifice was ony 20 per 1,000 of those born. Nor could social position be brought forward in explanation of this extraordinary discrepancy; for in the most unfavorable group were infants of waiters, navvies, textileworkers, dressmakers, coal miners and many others; while in the favorable group were infants of copper miners, motor mechanics, hosiers, boot dealers, glove makers and many others.

We must, therefore, accept the highly satisfactory conclusion that this early infant mortality is in large measure preventable.

### DO INFANTS "START FAIR" AT BIRTH?

Before considering means for preventing preventable mortality, we may glance at the fellow-fallacy to the one exposed above, viz., that infants start fair at birth, being born in a fairly equal state of health. It is worth while to pursue this inquiry, inasmuch as incidentally it reveals some of the more important lines along which the prevention of neo-natal mortality must proceed. Converging lines of evidence demonstrate the error of the above statement:

(a) The enormous differences in mortality in the first week and in the first month after birth must in large part be due to differences existing at the time of birth. If further evidence is required it is furnished by

(b) The varying prevalence of syphilis in different circles. Thus Doctor Stevenson has shown that the death-rate from syphilis in illegitimate infants is eight times as great as that of legitimate infants; and although similar statistics cannot be given for other classes, we

know that syphilis is a large and varying cause of illness of mothers, of still-births, and of serious disease and mortality in infants born alive.

(c) The statement that infants at birth "start fair" receives no support from the statistics of still-births. For several years in England, still-births from the 28th week of pregnancy have been required to be notified to the medical officer of health. It is likely that the law has been complied with to a varying extent in different localities; but this can scarcely explain the fact that while, on an average, still-births number 3 to every 100 live births, in some localities the proportion is as high as 7 or 8. Given such variations, it is inconceivable that they can fail to be associated with corresponding variations in the health of the mothers and of infants born alive under corresponding conditions.

(d) The experience of illegitimate infants forms a striking reflection on the opinion that infants start fair at birth. Although the number of these is small in proportion to the number of births in wedlock, there is here a field of social and public health work which if occupied, would materially reduce infant mortality and which is urgently called for by every humanitarian instinct. In the past, it has been thought necessary—as likewise in the treatment of venereal diseases—to associate such assistance as is doled out with conditions marking the donor's sense of the moral obliquity of the recipient, which have rendered help in large measure futile. Among the most sinister of methods of helping unmarried mothers is the one which insists on parting the mother and infant as soon as possible; and yet this has been the method adopted by many agencies in this field; regardless of the elementary fact that the most hopeful action, not only in saving the life and maintaining the health of the infant, but also in lifting the mother out of the morass into which she has fallen, consists in rousing and maintaining maternal love.

(e) A most important factor in the causation of neo-natal mortality and the saddest evidence of all that infants do not start fair consists in the enormous variations in the incidence of sickness and deaths of mothers during pregnancy and in child-bearing.

This can be seen for England and Wales in the map given opposite page 12 of my Report (1914-15) on Maternal Mortality in connection with Child-bearing (Cd. 8085).

We can divide this mortality into two groups—due to sepsis and due to other conditions, of which renal disease is the most important.

It is doubtful whether any decrease in the death-toll from causes other than puerperal sepsis has occurred. On the other hand, puerperal sepsis has shown a marked decline, and it is possible to dissociate this from the passing of the Midwives Act, 1902, and the administrative control which has been

secured over midwives, who now attend about three-fourths of the total births in England and Wales, subject to the rigid condition that medical assistance must be obtained in the event of abnormality in the case.

It is more than unsatisfactory, however, to find that notwithstanding the teaching of Semmelweiss and of Oliver Wendell Holmes, and the discoveries of Pasteur and their application in Listerison, it is still true that in England for every 700 infants born alive, one mother still loses her life from puerperal sepsis; that a much larger proportion is invalided from the same cause; and to recall that this mortality and disability occur chiefly as the result of neglect or ignorance in the practice of individual obstetricians, medical or midwives, and from the failure of the community and its representative public health authorities to provide adequate skilled assistance in the one chief event in the national life with which is wrapped up the future and the future welfare of mankind. It is difficult to obtain comparable American statistics, owing to defects in birth registration; but the position in the United States is not less unsatisfactory.

The record for diseases commonly regarded as non-septic is even more unsatisfactory. No improvement can be seen during the present century. Of the total mortality due to pregnancy and parturition the proportion due to different causes is approximately as follows:

| | |
|---|---|
| Puerperal sepsis | 31.7% |
| Puerperal albuminuria and convulsions | 21.6% |
| Puerperal hemorrhage and other accidents of childbirth | 25.5% |
| Other puerperal conditions | 10.4% |
| Accidents of pregnancy | 10.8% |
| | 100.0% |

The bare statement of facts gives important indications of the degree to which preventive measures might be adopted.

The preceding very imperfect review of some of the causes of neonatal and maternal casualties should naturally be followed by a survey of possibilities of improvement. As a general hygienist, I am incompetent to discuss the special obstetrical, gynecological and pediatric problems involved, but as these problems are coming more and more within the scope of public health administration, I may be allowed to sketch what is being done by public health authorities, and what it appears to be desirable should be done generally, in order to enable every mother and infant to have the best care which modern medicine renders available.

And first, I would plead that this subject of care of the mother and the new-born infant should not be placed in a compartment separate from general medical care on one hand, or from general public health administration on the other. At every point the general hospitals or private physician will be needed;

and other departments of public health work must be called in aid.

Still less, should there be a lack of continuity of observation and care during pregnancy, post-partum, and in infancy, even though different physicians are employed. For medical students, one of the greatest desiderata is that they should become practically and continuously acquainted with patients while they are under supervision in pregnancy, during and after parturition, and in the subsequent months when there are two patients instead of one. This evidently can only be secured by having at hospitals in all medical teaching centers, pre-natal clinics, pre-maternity beds for complications of pregnancy, lying-in beds in the hospital, as well as a home clientele, and beds for complications in or after parturition; a post-natal clinic, and a complete system of home visitation of mothers and infants; a clinic for the period between infancy and school life; and a school clinic. And, although perhaps in less elaboration, the above enumeration represents the essential needs of every community.

Second: The best plan for securing an ante-natal clinic is to begin with a post-natal clinic for mothers and infants. Dr. F. S. Kellogg has pointed out that all post-natal care is pre-natal care for the next infant; and that no inconsiderable share of illness of mothers, and of consequent failure in their efforts at child-bearing, is due to neglect of supervision and care after the ten days of the parturient period.

The amount of life and health saving attainable by a pre-natal clinic is less than can be secured by improved care in the lying-in period; but probably one-half of the still-births could be prevented, and much of the existing discrepancy in infantile death-rate during the first week after birth could be removed by increased care during pregnancy. Pre-natal clinics have already been largely developed both on their educational and clinical sides; and on the clinical side, in addition to the treatment of minor ailments, the health prospects of both mother and infant can be improved by measurement of the pelvis, ascertainment during advanced pregnancy of the presentation, periodical testing of the urine, and determining whether the mother has become infected by syphilis or gonorrhoea, and by appropriate action in each case.

Although no further mention is made here of the diagnosis and treatment of syphilis during pregnancy, I regard this as one of the greatest gains obtainable from the ante-partum observation of mothers.

Third: Skilled care during parturition is even more important than ante-partum care; and it is at this period that the greatest saving of both maternal and infantile life can be secured. It is, I believe, agreed among obstetricians that more infants of viable age die during labor from injury or accidental

complications than die from disease during pregnancy. Dr. Eardley Holland states that of 100 dead-born viable foetuses he found that generally 40 were macerated and 60 were fresh. In a preliminary statement as to an investigation made for the Local Government Board of England, he reports that post-mortem examination in about half of the fresh dead-born foetuses showed severe cerebral injury in the form of cerebral hemorrhage and tearing of the septa of the dura mater, due to excessive stress on the cranium in labor, due to such causes as delivery by forceps or version carried out for abnormal presentations.

It has been suggested with doubtful accuracy that the administration of chloroform in parturition has increased puerperal mortality, because of the increasing frequency of operative interference. Protracted delay and consequent molding of the soft cranial bones in very narrow or otherwise obstructive pelvic passages may, however, do harm as well as hasty delivery by forceps with an undilated cervix.

It should be noted that difficult delivery is an important factor in the production of mental impairment of the child; and in every instance of difficult labor an accurate and early diagnosis of conditions is required in order that the best treatment may be given.

The details of care required in parturition can only be briefly indicated. They include the provision of a trained obstetrician (physician or midwife) for every case; with consultative assistance when required; and adequate nursing help in every case. The strict enforcement of surgical cleanliness in technique should not require to be emphasized; and it is a subject for grave thought that there is still lack in this respect. This lack is not likely to be completely met until the next condition is fulfilled; a condition so important that I give it a separate paragraph.

Fourth: A greatly increased provision is needed, especially in smaller towns and in country districts, of maternity homes and hospitals where mothers may be confined. These are required, first of all because the mother must have adequate rest during this trying period of her life. They are required also because many of the homes of the poor are not satisfactory to have confinements in. It is to our shame that this is so, but it is so all the same. Take a simple fact like this: At the last census, in large towns in England—and I do not think that house-famine in large towns is less severe here—one out of every seven families lived in one or two rooms, one out of four, or more accurately 27 per cent, lived in dwellings containing one, two or three rooms. In these small tenement dwellings, every function of life has to be carried on; children are born in them, and they die in them; and it is perfectly evident that, so far as a large proportion of these homes is concerned, unnecessary risks are incurred in con-

nection with the lying-in period. You may say that this is a strong reason for housing reform. This is so, but the provision of adequate housing will take time. Furthermore, even satisfactory houses, without proper help during the lying-in period, do not suffice, and both because of functional and structural defects of the home it is extremely important for a large proportion of lying-in women that they should have the rest and superior attendance which can be given in a lying-in home, and which are unattainable in their own homes. I know of no social work which is so certain to give immediate results in the saving of maternal and child life, in reducing invalidism of mothers and in enhancing the national welfare, as the immediate provision in every area throughout the country, of maternity homes and hospitals for a considerable proportion of normal confinements and for the majority of complicated cases.

Fifth: The average standard of midwifery practice at present is admittedly unsatisfactory. In a recent discussion on "The Teaching of Obstetrics and Gynaecology" at the Royal Society of Medicine, London, Dr. H. R. Andrews said that " the old system of midwifery training had turned out a certain number of fully qualified medical practitioners who were nothing less than a danger to the State;" and he particularly illustrated "cases in which skilled help was not called in until brute force had done its w)rst." Although such extreme cases may be exceptional, it appears to be generally agreed among experts in England that notwithstanding the overcrowded state of the medical students' curriculum, at least three, and some urge six, months, should be devoted by each student to maternity and gynecological work, including work in pre-natal and post-natal clinics.

When this is done, and when in every teaching hospital there is an adequate service including pre-natal clinics pre-maternity beds, beds for normal and complicated midwifery, beds for post-partum complications, post-natal clinics and infant consultations, the physicians of the future can be adequately trained to meet the growing public demands for medical service, for supervision and care in normal and abnormal pregnancy, and in parturition, and for post-partum care of the mother and post-natal care of the infant.

Sixth: Services like the above are needed not only in centers of medical teaching, but in every town; and even in cottage hospitals beds for the same purposes should be supplied.

The problem will need to be faced in America whether adequate provision shall be made for medical attendance at every confinement, and practice by unqualified midwives forbidden; or whether, while prohibiting unqualified practice, trained midwives should be allowed to practice midwifery, as in England, under strict supervision and

control. Evidently there can be no prohibition of unqualified midwifery practice unless an alternative provision is available.

Seventh: The existing system of notification or registration of still-births opens up a large field of investigation and practical help, which has been greatly neglected in the past in most areas, Dr. J. Whitridge Williams found that the death of the foetus after the seventh month of pregnancy was due to syphilis in 26.4 per cent of the total cases of still-birth; and other authorities place this proportion at about 20 per cent.* Evidently systematic inquiry followed by action in these cases would result in a great reduction of syphilis, as well as in an increase of live-births.

Through the same channel important gaps in our knowledge of the causes of still-births and of earlier abortions might be filled. I am aware that a number of important observations in these directions are being made, but there is need for more extensive work in investigation; and there is no field in which such investigation holds out a more promising prospect of success in the saving of life.

Eighth: Our knowledge on many points in ante-natal pathology is still very defective, notwithstanding the pioneer work by Ballantyne and Routh in England and by many workers in this country. There remain many blanks in our knowledge of maternal syphilis, for instance as to the degree of importance attaching to a negative Wassermann test in mother or newborn infant; and we have but little knowledge of the toxins of eclampsia apart from renal disease. Our knowledge of the causes of infantile death during parturition, apart from mechanical causes, and of the causes of death in the first week after live-birth is still rudimentary. And this notwithstanding the fact that pathological material is abundant and waiting for investigation. The difficulties of such investigation are great; but it is certain that in the coming years we shall have much light thrown on what is now obscure.

Meanwhile it would be a calamity if the need for further investigation were to divert attention from the large scope for immediate reduction of mortality both of mothers and infants; or to delay action; and in promoting this work we have found in England that there is needed the active co-operation of

Every private medical practitioner
Every midwife
Voluntary hospitals, whether general or special
Social workers, and
Public health authorities.

I do not propose to trouble you with details of the maternity and child welfare work which in recent years has been organized in England. It has rapidly increased in volume and scope, and its develop-

*Omitting cases among the colored population the percentage of syphilis was considerably lower.

ment has been aided by the grants given by the Central Government in aid of local activities.

There is evident need for the promotion of systematic combined effort in the directions indicated in the preceding remarks. No motives need be invoked beyond the traditions and ambitions for the welfare of mankind of our common profession; but as my remarks may possibly reach a wider audience, let me in conclusion recall the eloquent and touching sentences which Oliver Wendell Holmes included in his essay on "The Contagiousness of Puerperal Fever." (Printed in 1843; reprinted with additions, 1855). "The woman about to become a mother, or with her newborn infant upon her bosom, should be the object of trembling care and sympathy wherever she bears her tender burden, or stretches her aching limbs. The very outcast of the streets has pity upon her sister in degradation, when the seal of promised maternity is impressed upon her. The remorseless vengeance of the law, brought down upon its victims by a machinery as sure as destiny, is arrested in its fall at a word which reveals her transient claim for mercy. The solemn prayer of the liturgy singles out her sorrows from the multiplied trials of life, to plead for her in the hour of peril. God forbid that any member of the profession to which she trusts her life, doubly precious at that eventful period, should hazard it negligently, unadvisedly, or selfishly!"

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Concerning the Education of Physicians in Social Medicine, Major-General Sir Bertrand Dawson says:

"In the past, Governments have left the medical profession too much outside their counsels, and the doctors on their part have been too aloof and have lacked vital contact with public affairs.

"Doctors have given freely of life and knowledge to the cause of the war. Like others they will not emerge from the world struggle as they entered it. They will return to civil life with a wider conception of their careers and responsibilities. They will require and demand a wider sphere of work and improved conditions for its fulfilment. Devotion to the immediate needs of their patients will go hand in hand with opportunities for study of the problems of disease and the needs of the community. Their vision, hitherto focused on the individual, will extend its range so as to embrace also the community. Professions, like individuals, have their phases of development. In the medical profession today we see the dawn of the civic conscience."

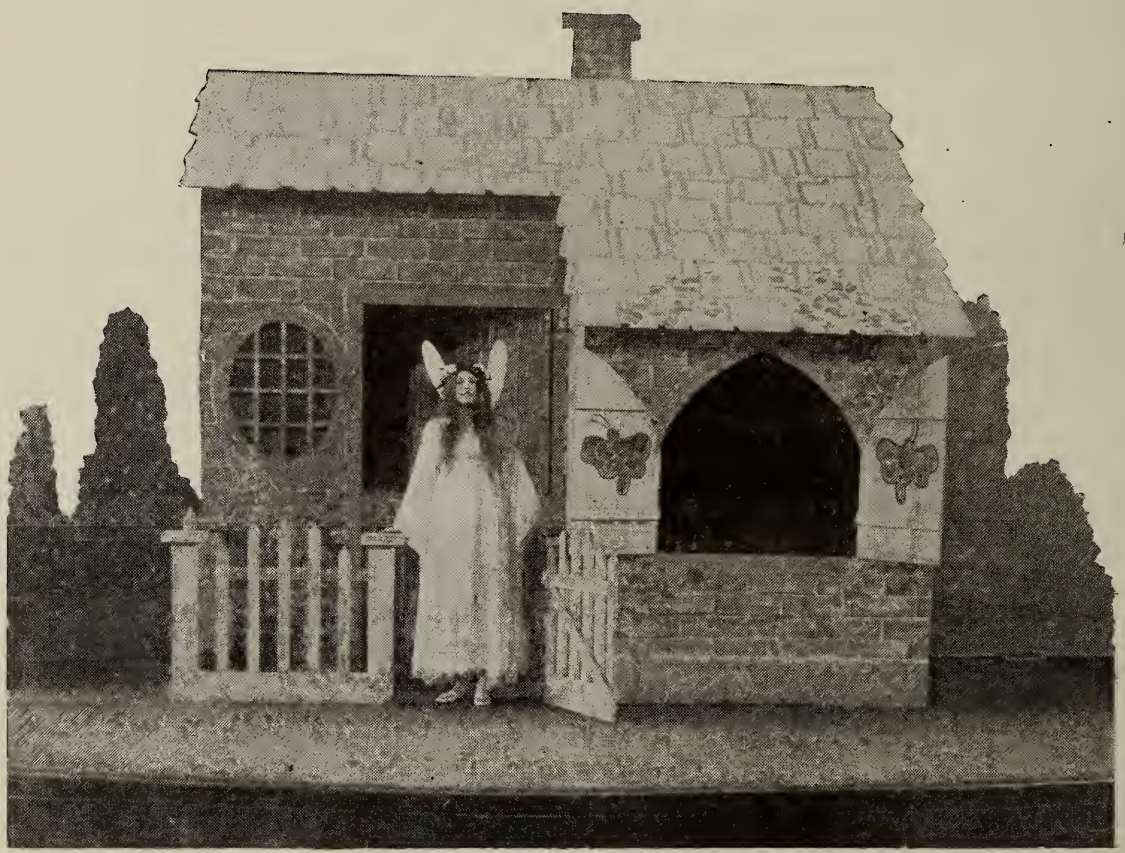
# A Fairy Health Teacher

Mrs. John Collier

THE school auditorium was packed to overflowing with 500 eager children. In hushed silence and tense expectancy all eyes were fastened upon a beautiful little house built as if by magic on the school platform. The walls of rose colored brick, the low sloping roof of gray shingles, the climbing vines and door-yard flowers, the tightly closed little door and window shutters cut in butterfly design all breathed of secrets and mysteries to come.

And then to add to the sense of unreality their own Principal rose, and in a tone of voice they had never heard him use before, made this strange announcement:

"I hope you all love and believe in fairies as I do, for a real fairy has promised to come all the way from Fairyland, to tell you the secret of Health and Happiness. If you will all close your eyes one instant, I know she will appear, for fairies always keep their promises."



Instantly 500 pairs of eyes were closed very tight indeed, to open again upon a lovely sight. There was the fairy flitting about the tiny house, her every motion expressing joyful surprise. Swiftly at her touch, the fast closed door flew open, the butterfly shutters swung wide, and a soft light shone forth illuminating as with moonlight the fairy's beauty.

Sighs and murmurs of delight came from the children as they gazed upon her silver wings, the shimmering gown of moonlit mist, and the crown of apple blossoms. But only when she spoke did they feel the full spell of her fairy charm, for the caressing tones of her low-pitched voice seemed to speak straight to the heart of every child.

Spellbound they listened as she told them the story of the fairy house; how old witch Ignorance had burned the house to the ground; of her great grief; how the lovely bird whose name was Education had tried to comfort her with the words: "Keep up your courage, Fairy, for I will tell you how to build your house anew. It can be done by the hands of Children alone. Every time a Child learns to eat the right food, a brick shall be added to your house, every time a Child learns to sleep in the sweet fresh air, a shingle shall be put upon the roof. And every time a Child learns to play and be happy, a colored glass shall be added to the windows."

But the Fairy, only half comforted, asked how the children could be taught these things, and the Bird replied: "I will go to the Teachers, who are wise and good, and tell them what to do."

"So the bird whose name was Education, started on his journey. He took his brother Rumor with him to help tell the Teachers because there were a great many Teachers to be told about the Children's health.

"Far and near these wise birds traveled, to little towns and to big cities, and everywhere the Teachers listened to their story, until in all that great country, the Children were taught to eat wholesome food, to sleep in the sweet fresh air, and to play and be happy.

"And as the Children grew healthy and happy, the bricks were added to the Fairy's house, shingles were put upon the roof, and lovely colored glass filled up the broken windows."

Without breaking the spell of the make-believe, the Fairy then told the children the wonderful Secret —the Secret of Health and Happiness. She told how each one of them could build a beautiful house, imbuing with magic the virtues of milk, green vegetables and fruit, sleep, fresh air and cleanliness. It was all done so simply, so confidingly, and with such glancing humor and whimsical appeal that even the teachers found themselves under the fairy spell.

But later they learned how to apply this latest method of health

teaching in their own class rooms, when they talked with Miss Raymond, the Public Health Nurse, who plays the role of the Fairy. Miss Raymond told them how, as a Red Cross nurse in the schools of West Virginia, she has been using the methods developed by the Child Health Organization of America.

To stimulate the children's interest in the daily teaching of health habits and in their monthly weight records, Miss Raymond created a series of health games. From the Child Health Alphabet she devised a Cho-Cho game of make believe. Cho-Cho was pictured to the children as their magic friend who plays with you as long as you keep the Rules of Health, but who suffers instant banishment the moment the rules are broken. When for instance you brush your teeth, Cho-Cho dances triumphant on your shoulders; when you sleep with windows wide open, Cho-Cho sits cross-legged on your pillow and tells you delightful dream stories. When a whole class learns to drink milk or eat green vegetables, Cho-Cho perches above the blackboard, and helps you make quick work of arithmetic and spelling.

So eagerly did the children play the Cho-Cho game that class competed with class and school with school in the establishment of health habits, to win the coveted presence of Cho-Cho.

From the health stories, "Cho-Cho and the Health Fairy," written by Miss Griffith, and published by the Child Health Organization, Miss Raymond made the game of the Fairy House. Each class was supplied with a cut-out pattern of the Fairy House which was put up on the blackboard brick by brick and shingle by shingle, as the health habits were established. Competition in the house building was stimulated by contrasting the wicked joy of the old witch, when the children failed to place the needed brick and shingles, with the Health Fairy's grateful delight over each step of the rebuilding.

But the Child Health Organization did not believe that Miss Raymond's gifts should be confined to one community, and persuaded her to play the role of the Health Fairy so that she could give help and inspiration to children throughout the country. And so, following in the footsteps of Cho-Cho the Health Clown, and of the Picture Man, the Health Fairy is now being sought by Public Health groups all over the country, as an effective means of appealing to children, and of stimulating community interest in school health work.

Miss Raymond, however, enjoys a unique advantage over Cho-Cho and the Picture Man, for as a trained health worker, she can give expert advice in the organization of local health work, thus rendering a double service.

It is significant of the trend of public health work today, that health groups from Boston to San Francisco are already asking for the Health Fairy although she only

made her first public appearance on April 15 at the Public Health Nurses' Convention at Atlanta. Indeed as a result of the country-wide campaign for the health of school children, launched only two years ago by the Child Health Organization, the following programme is being actively pushed by such local groups as Red Cross chapters, Anti-Tuberculosis Associations and Home Demonstration Agents.


## THESE ARE *the* RULES *of the* GAME

A full bath more than once a week.

Brushing the teeth at least once every day.

Sleeping long hours with windows open.

Drinking as much milk as possible, but no coffee or tea.

Eating some vegetables or fruit every day.

Drinking at least four glasses of water a day.

Playing part of every day out of doors.

A bowel movement every day.

PROGRAMME

(1) A scale in every school

(2) Every child's weight record sent home on the monthly report card

(3) Time allowed in every school day for the teaching of health habits

(4) A hot school lunch available for every child

(5) Teachers trained in normal schools to teach health habits

This outlines the first steps for guarding the health of school children, which any school can take, and which pave the way for the more elaborate organization of school medical and nursing service and clinical service for the removal of physical defects.

The chief contribution of the Child Health Organization, however, lies in the creation of modern methods of interesting children in the establishment of health habits, as outlined in their own health pamphlets and in those which they have prepared for the U. S. Bureau of Education. The full value of the dramatic appeal of Cho-Cho, the Picture Man, and the Health Fairy is only realized when the teaching of health habits is as vital a part of the curriculum as the teaching of the three R's.

To stimulate the teachers' interest in the creation of new methods of health teaching, the Child Health Organization recently offered a $1,000 fellowship for the best graded plan and outline for interesting children of the elementary schools in the establishment of health habits. This includes a year's study of modern health education at Teachers' College, Columbia University. The competition, however, is not restricted to teachers alone, and valuable contributions may be expected from public health nurses and dietitians, before the competition closes July 15.

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## Hospital Classes for Expectant Mothers in Chicago

The extension of the hospital into the field of public health has followed as a logical development of the idea that the hospital must do more than simply care for the sick. In Chicago, the Chicago Lying-In Hospital and Dispensary holds classes for expectant mothers.

If a woman expects to earn her living in any other profession, she spends quite a little time and money in acquiring some degree of efficiency in that field before attempting to fill a position. It is necessary in order to become competent to fill the position of mother to also spend some time and money in acquiring some knowledge of this most important of all professions.

In order to fill this long-felt need, the Chicago Lying-In Hospital has started a series of classes including lectures and demonstrations to prepare women for their maternal duties.

# Pre-natal Clinics in Paris

Fred L. Adair, M.D.

*Associate Professor of Obstetrics, University of Minnesota Medical School*

IT is realized by all who have looked into the subject that there is no more important welfare work for France than that dealing with maternity. France has suffered because of the low and diminishing birth rate, the high percentage of sterility, the large number of abortions, the great number of stillbirths, and the high infant mortality especially in the first two weeks of life. Under the French Ministry of Health a Council of Natality was created in January, 1920, who are to "examine all measures which may combat depopulation."

In September, 1918, the author was asked by Dr. William P. Lucas, Chief of the American Red Cross Children's Bureau, to investigate and report on the obstetric situation in Paris with special reference to pre-natal care.

In my report it was stated that "The great need is for social-medical work in connection with the maternity hospitals. The establishment of properly conducted pre-natal work would be the greatest boon to the mothers, to the maternity hospitals and to France. It is not necessary to discuss the value of pre-natal work as a general proposition, but there are certain conditions in France which would make the establishment of such a work of more benefit to France than almost any other thing which could be done. The machinery for carrying on this work in Paris is already partly constructed but needs to be properly adjusted and supplemented. What is needed to perfect this system is closer contact with the patients and careful study of their actual home and economic conditions, not en masse but as individuals."

After the investigation as to the need of pre-natal care mentioned above it was necessary for me to leave Paris to carry on some emergency war work, so that no further steps were taken until the latter half of December, when after some necessary preliminary arrangements, the pre-natal work was begun in the 14th and 19th arrondissements, and a little later in the Municipal Dispensary at Bicetre. The general idea of the work was to get in touch with as many of the pregnant women in the community as possible. The contact was to be from both medical and social points of view in the consultations and the home as well.

*The prospective mothers were found by* (1) securing from the mayor's office a list of those who

applied for the allocation; *(2) co-operating with the maternity hospitals of the neighborhood to obtain the names of the women registering in their consultations who lived in the quarters where the pre-natal work was being conducted; (3) developing friendly relations with the midwives of the section and helping them to give their patients better care; (4) reference of cases from other consultations as that of the Rockefeller Commission for Prevention of Tuberculosis and those of the Infant and Child Welfare Work; (5) the bringing of one woman to the consultation by another; (6) accidental contact with the home visitors.

*Records.* After registration at the consultation the patient was given a card to be enclosed in an envelope and retained by her at all times. The information on this card was the name, address, registration number and date when she was to return to the clinic.

The place of confinement was indicated and who was to care for her, the date of her last menstruation, of quickening and the probable time of confinement was recorded, any incidents of pregnancy were noted, the number of previous pregnancies was recorded and any important complications stated. Findings of importance were mentioned, the character of the pelvis, the condition of the urine and blood pressure were briefly given. The patient was not only supposed to bring the card with her to the consultation but also show it to her attendant at the time of her confinement so that the information secured at the pre-natal consultation would be available for use by the obstetrician or midwife. Her attendant was asked to supply certain facts which were to be recorded on the card as the date of confinement, the place and any complications. The sex, weight, length and feeding of the child were noted on the card. The patient was supposed to bring this information regarding herself to the post-natal consultation and that concerning the newborn to the clinic for nurslings. The card also served to remind the patient of the date on which she was to return to the consultation.

*Co-operation.* Any cases suspected of accidental diseases such as tuberculosis and venereal infection were sent to special consultations for both diagnosis and treatment. Those women who presented any obstetric complications were sent to the maternity hospitals for special care. The work was carried on in close co-operation with that of the Rockefeller Commission for the Prevention of

* The Strauss Law of 1913 provides a daily allowance to needy mothers of one franc 50 per day for four weeks preceding and four weeks following confinement providing the women cease work by receiving the amounts, take the proper rest and other hygienic precautions. To obtain this money anyone must apply at the mayor's office for at least four weeks before the expected date of confinement.

Tuberculosis, and also with the Children's Bureau of the American Red Cross.

*In the 19th Arrondissement* where pre-natal consultations were being conducted, a visiting nurse was sent to the Maternity services of Tenon and Lariboisiere Hospitals once each week to pay follow-up visits to such as went from the 19th arrondissement.

We tried to help the mothers who were to remain at home for the confinement to make the necessary preparations.

In the Social Center a class was held once each week where mothers and expectant mothers were shown patterns of things they would need. They were taught how to care for themselves and their babies and were given more or less personal instruction. They were also sent to food consultations.

During the six months about 200 pregnant women were taken care of in the pre-natal consultations of this arrondissement.

Every mother who had a living baby returned to the Nourisson consultation, three of which were carried on each week.

*The consultation at Bicetre* was held once each week, and a rather loose connection was established with Baudelocque Maternity. The Children's Bureau of the American Red Cross had already established clinics for nurslings and children in Bicetre.

*In the 14th Arrondissement* the work was carried on three times a week. The same general plan was carried out so far as possible in the absence of a social center, and a less complete infant and child welfare organization than that in the 19th. Over 200 cases were seen during a period of less than six months.

*The French "Carry On."* When the American Red Cross withdrew from France this pre-natal work was taken over by the French. In Bicetre the work was taken over and carried on by the municipality. In the 14th arrondissement, the Patronage Franco-American, in close connection with the Mairie, arranged for a continuation of the work. An "oeuvre" was formed in the 19th arrondissement to carry on the whole plan of the work as established there. May 1, 1919, social visiting work was established in Baudelocque and in St. Antoine, while that which had already been started at Tenon and Lariboisiere was continued.

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A Bit of French Law: In April, 1919, a bill was introduced into the French parliament to provide for expectant and nursing mothers from nine months before the birth of the baby through the nursing period. One-half of this expense is to be met by the state.

Early in 1920 Prime Minister Millerand gave permanent form to the Ministry of Health which Clemenceau had organized, gathering together all services having to do with health and hygiene. The Minister of Health is M. Jules-Louis Breton.

# Divisions of Child Hygiene Under State Boards of Health

DURING the meetings of the American Child Hygiene Association in Asheville in October, 1919, the Directors of Child Hygiene Divisions of State Boards of Health met together perhaps for the first time.

Dr. Anna E. Rude, the Director of the Division of Hygiene of the Children's Bureau of the U. S. Department of Labor, was asked to meet with them because of her intelligent and untiring effort to increase the number of State Divisions of Child Hygiene.

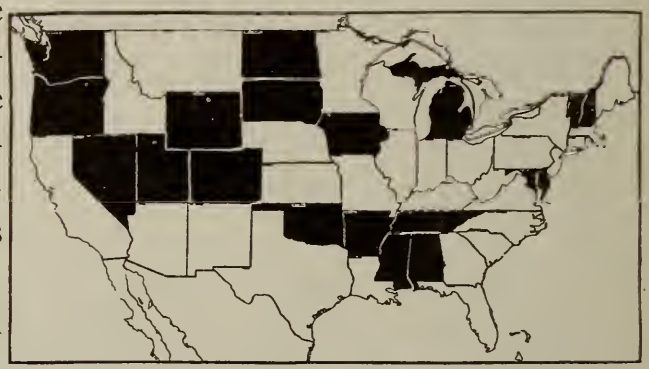
At this informal meeting of Child Hygiene Directors it was decided that a news letter would be a vaulable means of intercommunication between divisions. Therefore, the Children's Bureau was asked to prepare a Quarterly News Letter. The first of these went out in January, 1920, containing an outline of the work undertaken by the various divisions established before 1918, showing the growth and development as recorded in the reports of the various State Boards of Health.

The following table, abstracted from this Quarterly News Letter, shows chronologically the increase in Child Hygiene Divisions under the various State Boards of Health.

Established

| 1912 | 1919 |
|---|---|
| Louisiana | Arizona |
| 1914 | Connecticut |
| New York | Idaho |
| 1915 | Maine |
| Kansas | New Mexico |
| New Jersey | South Carolina |
| Ohio | Virginia |
| Massachusetts | West Virginia |
| 1917 | California |
| Montana | Georgia |
| Illinois | Kentucky |
| Indiana | Missouri |
| 1918 | Nebraska |
| Florida | Rhode Island |
| North Carolina | Texas |
| Minnesota | Wisconsin |
| Pennsylvania | |

It will be noted from this table that while up to the end of 1918 the total number of these Child Hygiene Divisions under the various State Boards of Health was thirteen, there were sixteen established in the year 1919 alone. This is a splendid indication of progress of state and national interest in child hygiene.



The states in black have not yet added Child Hygiene Divisions to their State Boards of Health.

*Is your state on the black list?*

# MOTHER AND CHILD

## A Magazine Concerned With Their Health

Published by

THE AMERICAN CHILD HYGIENE ASSOCIATION

1211 Cathedral Street
Baltimore, Md.




**JUNE, 1920**

"Mother and Child" today makes its first appearance. After twelve years of struggle, the American Child Hygiene Association is at last realizing its aim. Starting as the Association for Study and Prevention of Infant Mortality, a subject then almost entirely neglected, the Association soon found its field must enlarge beyond the period of infancy if much effort was not to be wasted. It was also soon realized that the welfare of the child was inseparably bound up with that of the mother and so in its work and its meetings, the whole period of childhood, from conception to maturity, has been under study and discussion. To express its purpose better, the name of the Association was finally changed also.

The War has added new force to the campaign for healthy childhood and, therefore, a healthy, efficient Nation. Could the children of today, under conditions of poverty, bad housing, and ignorance of the laws of health, grow and develop into healthy, strong citizens unhandicapped by physical and mental defects, we would not need to exert ourselves to improve these conditions, except in order to make life a little happier and a little easier, but a normal, healthy body and mind are the basis of all efficiency and they cannot develop under such conditions. The next generation must not be thirty-five per cent physically unfit.

"Mother and Child" is one of the ways by which this Association is trying to advance the cause it has stood for. In it we hope to present to physicians, trained nurses, social workers, and all those who are interested in the problem,—or ought to be,—information on what is being done the world over, on special needs and problems, and the way they are, or can be met. Workers in this field feel this lack of information. It has led in the past to much duplication and waste of effort.

The Association is also ready to help in every way possible. It is ready and anxious to help anybody, anywhere, in planning, starting and improving child welfare work. Any request will be met as promptly and fully as it is possible to do so. You are referred to the second

page of this magazine for our program. Please read it and help.

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Modern efficiency in business methods has enabled America to make rapid progress in world finance and commerce. For a long time it was not well understood that labor-saving methods, standardization of product and quantity production are not alone sufficient to insure success. Even given all these, the manufacturer or merchant who is really progressive must first of all know exactly what his products cost in order to prevent a loss or compute a profit. For this reason various exact and more or less elaborate "costs accounting systems" came to be the established routine in all successful business establishments, and on the information thus gained the year's progress or retrogression was determined—since it could not be determined exactly in any other way.

The United States of America is doing a good business in child hygiene, but it has a poor costs system. No less an authority than Sir Arthur Newsholme calls renewed attention to our laxity in the matter of birth registration. Adequate laws are lacking in some places and adequate enforcement of existing laws in many other places. Since the mortality rate of infants is based on the number of births, an error of as much as 5 per cent in the latter makes it impossible to determine whether or not progress is being made in reducing the death rate of the infant from year to year. We are doing a good business and we perhaps think we are making our profit in a diminished infant mortality—but we do not know exactly, because we have no adequate costs accounting system in the shape of general enforcement of legislation to compel exact birth registration.

Dependable birth statistics are a minimum requirement in public health work which should be easy to obtain if communities and their legislative representatives could be taught the fundamental importance of these statistics in measuring the results of child hygiene work. The field of the American Child Hygiene Association is largely an educational one and its members should actively and militantly favor any movement toward spreading this doctrine of the necessity of accurate vital statistics as an important obligation of their educational mission.

The examination of recruits for the armies of the world revealed an appalling number of physically and mentally unfit. It is stated that 75,000 men were rejected in the United States alone because of mental stigmata, while the number with physical defects would make an army of themselves. Many of these infirmities could have been prevented if proper attention had been given to the sufferers when they were children. We have obtained from the draft system a statistical record of the necessity for child welfare work which could not be secured in any other way.

# "Health On Wheels"

## In The Wake Of The Child Welfare Special*

FRANCES SAGE BRADLEY, M. D.

AN experiment in the use of the automobile as a means of reaching rural communities with the gospel of child welfare, is still being carried on by the Children's Bureau of the Department of Labor. Similar work has been done in the rural sections of Connecticut, Vermont, Michigan, New York and in Cook County, Illinois, all patterned somewhat after the style of movable clinics used in and around Cleveland, Ohio. The Children's Bureau truck is known as the Child Welfare Special.

The object of this experiment is:

(1) To interest rural communities in better physical and mental development of children.

(2) To inspire a sense of individual and municipal obligation in

* The Children's Bureau, U. S. Department of Labor, has a pamphlet, which may be had for the asking, giving the cost, equipment, and other details of The Child Welfare Special.

The Child Welfare Special

relation to the welfare of children.

(3) To suggest methods of securing the same by means of better medical and nursing service, looking toward the ultimate establishment of permanent child welfare centers.

### CO-OPERATION

The Special goes only upon invitation of a State Board of Health. This insures the interest and co-operation of local organizations, such as the County Medical Society, County Board of Education, Board of Trade, Women's Clubs, etc. With the assistance of these bodies an itinerary of the country is arranged. Meetings at which the need for a vigorous nation is explained, are held in the chief towns of a county. Leadership is encouraged by the selection of a committee in larger towns or of a chairman or hostess in the smaller settlements. These are responsible for securing certain publicity, for making appointments with families desiring a conference, and for the comfort of mothers and children while waiting.

### ADVANCE PUBLICITY

An advance agent travels ahead of the Special, interviewing helpful persons, arranging dates, securing proper publicity by means of the press, the church and county schools, though mainly, as is the custom in rural communities, by word of mouth. She selects a parking place in each of the settlements to be visited and instructs committees or chairmen in the details of their co-operation.

### THE "SPECIAL" ARRIVES

The big truck is naturally imposing and begins to acquire a following on the outskirts of every village. By the time the public square is reached, it is heading a procession of the entire floating population. Men and boys are absorbed by the magnitude and completeness of its mechanical construction, while women and children are equally fascinated by the ingenious, immaculate details of the interior. It becomes a never-ending source of wonderment and admiration, both for what it is and for what it represents. The report of the numbers of defective boys, as revealed by the draft, has sifted to the remotest regions, and Children's Year popularized the examination of children. As a result everybody wants to be examined. Applicants range in age from two weeks to twenty-two years, and but for a rigid adherence to the appointment system, the Special would be overwhelmed with work. It is often necessary to limit the children examined to one from a family. To circumvent this, women are found securing foster mothers long enough to have a second child examined. Again, women have a remarkable facility for acquiring twins on short notice, a double birth being accepted as one child. The request for conferences increases day by day and rarely is the Special able to meet the demand. Its aim, however, is not to examine all the

children of a county, but to demonstrate the need of such work and a method of its accomplishment.

### THE HEALTH CONFERENCE

On the day of the conference families are received, one at a time, into the Special with all the privacy of a consultation room. The waiting has been minimized by requiring an appointment for every one desiring a conference. In a dressing room at the end of the truck, the nurse secures the family history, an early record of each child under seven (the truck aims to reach only children of pre-school age), weighs, measures and prepares it for examination. In the conference room the physician examines the child, commends the parents for good work, but shows them also where the child fails to be in the best possible condition. A record is given each mother, showing the condition of the child, with written suggestion for better hygiene and urging the prompt attention of their physician for the correction of any defects found. Under no circumstances is a prescription or treatment given. Sick children are invariably rejected and referred to a clinic or private physician. The Special is wholly an educational, not a clinical demonstration.

The county doctor is often the first caller at the conference, with a retinue of small followers. In one town the Ford and driver of the village physician spent two days bringing in from the country,

Is he physically fit?

mothers and children who could not otherwise have come. Women often contribute cars for the same purpose.

Teachers are equally interested, eagerly excusing their six-year-olds for examination. One teacher urged the county superintendent to seek a special arrangement whereby her older children might be examined. The graduating class of a normal college asked to be shown in small groups how to recognize adenoid faces, enlarged tonsils, the eruption and care of teeth, and tangible points in the nutrition of children. Several of them decided to urge upon parents a thorough examination and a clean bill of health before entering children in school.

The interest of children is as keen as that of the grown-ups. They listen attentively to words of remonstrance and advice. One little Bobbie returned to the truck so often that parental restraint was necessary to curb his enthusiasm.

Another youngster slipped round behind the Special and separated himself from a baby tooth which had been condemned. Returning to the truck he triumphantly bore aloft the offending shell.

A little girl, in reply to a question, eagerly held up her hand and chirped: "Yessum, we've got a tooth brush at our house."

### EXHIBIT AND DEMONSTRATION

The Special stays in the county seat usually a week or ten days, then goes for two or three days to each of the smaller settlements of the county. It is centrally parked, usually near a court house, town hall, lodge room or woman's club, where there is an available waiting room. This room is also used for testing the vision and hearing. In this room there is a small exhibit of posters, charts, panels and miniature models showing a few household conveniences, and good ways to bathe, clothe and feed young children are also demonstrated here. There is also literature for distribution—leaflets, bulletins, etc., by Government Departments, and by the State Board of Health of the state visited. All this educational matter is carried in the truck.

### "OWN A COW CAMPAIGN"

In a certain county of fertile soil and excellent pasturage, one community had not acquired the habit of keeping cows. Their children invarialby reported tea and coffee as their customary drink and their poor development was proverbial. In another town of the same county the cow habit was well established and the better development of the children was a mute testimony to the value of milk, compared with tea and coffee, as a food for young children.

An ingenious county agent saw his chance of popularizing the cow. He put on an "Own a Cow Campaign" and after a due amount of publicity, imported five carloads of good cows which he sold at cost, one to a family. When it was noised abroad that Mrs. Smith,

Mrs. Brown and Mrs. Jones had each bought a cow, so great was the demand that the county agent had to duplicate his order.

### WHAT "THEY" THINK OF IT

It was gratifying to see the interest of organized bodies in the possibility of a definite child welfare program in their midst. Medical societies, latent since the war, revived their meetings to discuss the possibility of permanent work and urged a representative of the Bureau to accompany a committee from their number before the Fiscal Court and present the need of a county nurse. They generously made X-ray, microscopic and laboratory tests and aided in placing special cases requiring orthopedic or other treatment.

A group of farmers requested a Bureau representative to meet with them in the office of their county agent and explain what was meant by child welfare. These men know that each crop must have constant and special attention and that if left to nature it yields a harvest of weeds. They also know that young pigs fed on corn and slop require a year and a half to reach marketable size, while if fed on a well-balanced ration they will not only reach that size in ten months but will produce better meat and at a lower cost of production. They are prepared to apply the same principle to the raising of children.

Another group of men giving practical proof of their appreciation was a Trades Council of miners, which invited the Special to explain how their wives might become more successful mothers. So genuine was their faith in the advice given that before leaving the meeting those grimy men raised between $700 and $800 toward a community nurse.

### MEASURE OF SUCCESS

That the truck reaches people who could hardly be reached by other methods is reasonably certain, for it works only in rural regions where the gospel of child welfare has not yet penetrated, and where the only way to get the people is to go after them. The average farmer goes to town, the county seat, usually once a week except during the busy season, but not so his wife. The whole year is the busy season with her and the only hope of finding the farmer's family is to go where they live.

The Special examines from 100 to 150 children per week, meeting the families of these children in a more intimate and convincing way than would be possible under methods hitherto tried. It is impossible at this early date to estimate the amount of follow-up work resulting from these examinations, but the local physicians testify to being swamped with children's work following a visit of the truck.

The Special has had the satisfaction of interesting or of crystallizing latent or wavering interest in the establishment of various child welfare activities. In one case a baby clinic was being weighed in the

balance and is now an accomplished fact. Again medical inspection of schools or a milk clinic for under-nourished school children needed encouragement. In many cases the public health nurse was being considered and it seemed an opportune time to stress this practical agency for educating parents, quickening the public conscience and leading to the establishment of permanent welfare work. In fact, the wake of the Special is marked by the establishment of a public health nursing service where before there was none.

In addition to the mechanical advantages of the complete, up-to-date equipment of the Special for this type of work (better perhaps than could be found in the average small town) must be considered the dramatic effect made by the big government truck in its appeal for the welfare of rural children who constitute three-fifths of our entire child population.

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The Babies' Welfare Association of New York finds better homes for boarding babies. The vexed question of finding suitable surroundings for the child who has to be "boarded out" is taken up by a New York organization in a practical manner. Miss Mary Arnold, Executive Secretary of The Babies Welfare Association of New York writes: "We have also been developing the use of our boarding homes. We feel that by so doing we are keeping the children out of institutions, and thus playing a very definite part in the reduction of infant mortality. We have from five to ten mothers or fathers coming into our office each day, asking where they can place their children.

"We have secured information from various records in the city, from the Department of Health, and by corresponding with the women who wish children to board, so that we have definite information to give these mothers and fathers. We safeguard babies to be boarded by always giving addresses in the vicinity of a milk station, asking the father or mother to report back to us by means of the self-addressed post card we give, just where their baby has been placed. As soon as that card comes back to us, the nurse in the milk station is notified that there is a baby boarding in her district at the given address."

The Babies' Welfare Association of New York City is a federation of 170 agencies interested in child welfare. Its Central Office maintains a clearing house for cases and a general information bureau. This service is available for every one in order that time may be saved, a greater number of children reached, and immediate care given to every child.

# Supervising the Child of Pre-School Age

Robert D. Curtis, M.D.

*Medical Director, Baby Hygiene Association, Boston, Massachusetts*

## Lower Infant Mortality Rate

In spite of the influenza epidemic the year 1919 has established a record as a healthy year for babies. In the cities reported in the U. S. Public Health Index, 1918 ended with an increase above the average of 1.4 deaths per 1,000 of population, in infants under one year of age. But the following year proved to have so low a mortality that although its infant deaths for the first month exceeded the average, the excess mortality which had occurred in 1918 was compensated for before the first three months of 1919 were past. Even more striking than this is the observation that if we consider the two years 1918-1919 as a single period, the mortality for infants under one year was 9.3 per 1,000 below the normal average in spite of the epidemic. This means that for every 500,000 of population 1918 ended with a deficit of 700 babies, while the two-year period 1918-1919 ended with 4,650 more babies than would have been expected to have survived in normal years. This may in part be explained by the fact that the excess of babies which died in 1918 of respiratory infections, were the weaklings who, had they survived, would have succumbed to diarrheal and other diseases during the following year, and would thereby have brought the mortality curve closer to the average. These figures represent the gain in infant health for the country at large.

## Lower Sickness Rate

Boston shared the universal prosperity in some degree and ended the year 1919 with 500 more potential economic producers in its infant population than a survey of previous figures would have indicated. An editorial in the Boston Transcript recently called attention to the fact that it is becoming increasingly difficult to pursue hospital teaching in pediatrics because of the lack of infant patients. Such is truly the case, and our association would gladly assume entire credit for this state of affairs if it could; but while we know that our work is responsible for more than a small part of the good showing, and that our mortality figure of 1.77 per cent for the babies directly under our care has helped a good deal to lower the figures for the city at large, we realize that here, as in other cities, determining factors over which we have no control have been at work. We have at present twenty stations scattered

throughout the city, in which we hold thirty-three clinics a week. The total number of babies supervised in 1918 was 7,061, and in 1919, 10,327. We began 1919 with 4,230 babies being actively cared for, and increased the number to 6,614 by the end of the year. It has recently been estimated that there are about 21,000 babies in the city, which provides us with plenty of incentive to expand as fast as our finances and organization permit.

### CLINICS FOR CHILDREN OF PRE-SCHOOL AGE—NEED FOR THESE CLINICS

We have found that there is a great need of clinics to take care of older children, and that we have been well repaid for establishing them. It was formerly our custom to discharge our children at the end of infancy, the time of discharge being determined by the condition of the child and his degree of progress toward an adult diet, as well as by his age. Between that time and his necessarily more or less superficial examination by the school physician, from three to five years later, he was entirely free from medical supervision except at the rare intervals when an acute illness or more than the usual indulgence in penny candy made him sick enough to frighten the parents. Consequently he often entered school as a pretty poor physical specimen. Since 1917 we have opened six clinics for children of the so-called "pre-school" age, and at present have a registration of 917 children in that group. These children are in charge of a dietitian rather than a nurse, and our children are now being automatically transferred to them as they are old enough, instead of being discharged as formerly. It is in these clinics that we have an opportunity to judge of the effectiveness of our care of the infants, and striking contrasts between children who were properly cared for and those who were not are everywhere evident. Except for purposes of record, inquiry is hardly necessary to establish the fact that a bow-legged child or one with flat chest and projecting shoulder blades is a newcomer. As attest to the fact that medical instruction is producing results, the answer to, "how did you happen to come to have your teeth fixed," is frequently—"my big sister made me." Big sister's education has included instruction in the importance of proper hygiene, and it is she rather than the parents who means to see that brother is kept in good condition.

### THE MOTHERS

The attitude of the mothers toward the clinics for older children is different from their attitude toward the infant clinics and we have found that paying attention to this difference has helped make our clinics successful. Welfare associations have only lately begun to realize the importance of the care of older children and we may hardly expect the mothers to have more advanced ideas than our own.

The mother has heard so much about infant mortality, and has seen so many babies of her own, or of her neighbors, who failed to survive infancy, that she is willing to inconvenience herself to almost any extent to insure her infant being as well cared for as possible. She is unable to determine with any degree of accuracy whether infant's symptoms are of serious import or whether they mean nothing at all, and realizing her ignorance she comes to the clinics for her own peace of mind as well as for the baby's welfare. If, on the other hand, the child is old enough to tell about his troubles, she feels entirely competent to treat him with the usual cupboard remedies, and thinks no more about his physical condition until acute symptoms again require attention. His diet causes little concern because it differs from that of his elders only in quantity. Active and sustained effort is necessary to induce mothers to bring their older children to the clinics, and the clinic itself must be made as attractive as possible, to both the mothers and the children. If they find conditions pleasant they like to come, and in most neighborhoods clinic day is a sort of social event when the mothers can get together and swap baby troubles in half a dozen different languages. Those with the plump rosy babies linger over putting on the skirt and belly band so that everyone may have an opportunity for an admiring glance, while the mothers with the little under-nourished ones dress them with more speed and find some other excuse for lingering. Not infrequently a considerable rivalry springs up between two mothers who each jealously watch the scales to see whether the other's baby has gained an extra ounce. By helping along such good-natured competition mothers who are inclined to be lax about following instructions are often stimulated to follow them to the letter.

A separate examining room, even though it is only a screen across one corner, and half-sheets to cover the children while they are awaiting examination, are almost a necessity. There seems to be a common feeling among mothers that while it is a misfortune to possess an odd-appearing, under-nourished infant, the misfortune is only a temporary one, and that other women have no intention of making fun at its expense or of indulging in comparisons with their own infants. But the attitude of mothers of older children is entirely different. Their pride suffers very noticeably when their three- or four-year-old child is placed on a table and his defects are pointed out where other mothers can observe. That seems to imply unkind comments which they somehow feel are a direct reflection on themselves.

### THE PHYSICIAN'S ESSENTIALS

It has been our experience that the selection of a physician with especial adaptability for this sort of work is particularly important. Information on the care of infants,

while still far from complete, is readily available, and the procedure to meet various conditions is relatively standardized. Such is not the case with information concerning older children, and the physician must rely largely on his own experience and ingenuity. If one person has more than another to do with the success of a clinic, it is the nurse in the infants' clinic and the doctor in the children's clinic. The infant nurse visits the homes regularly and her influence increases as the mother comes to depend more and more on her instruction, while the doctor occupies a secondary position as one who simply lays down the rules to be followed. It makes no difference to the infant whether the doctor is pleasant and agreeable or gruff and short-spoken, and the mother is willing to endure an impersonal and rather unpleasant atmosphere to get his opinion. Older children, however, actively resent unpleasantness of any degree, and after one disagreeable experience object so effectivly to repeating it, that the mother, who usually feels entirely competent to care for them properly, decides that the visit to the clinic is not worth the trouble. To think in terms of dietetics, anatomy and physiology while examining a child, and at the same time to keep on the child's mental level requires a sort of mental versatility which not everyone possesses. Older men, except those who are accustomed by long experience, usually possess it to a less degree than younger men. By keeping on the child's mental level I do not mean to imply indulging in buffoonery to keep the child amused while he is examined by stealth, for that is not only unnecessary, but is a poor substitute for a bond of sympathy between the child and the examiner, which gives warning in advance that the use of the stethoscope, if the child is not given an opportunity to examine the instrument, will provoke a struggle. So small a thing as applying the stethoscope first to the back of the chest where the child cannot see what is going on, instead of to the front of the chest, will often convert an otherwise orderly physical examination into the undignified spectacle of a big man holding down a small boy by main force, and so lose another patient for the clinic.

### KEEPING FAITH WITH THE CHILD

There are very few methods of clinical examination to which children offer serious objection when they are properly performed, and almost always a ready forgiveness and trustfulness are proffered the examiner after even the most unpleasant procedures, if he has been as honest and truthful as he would have been with an adult. Further co-operation should not be expected from a child who has obeyed instructions to open his mouth for the purpose of showing his teeth, and has had an unexpected forefinger forced up his pharynx in search of adenoids. The selection of physicians with an intuitive un-

derstanding of child psychology will do more than any other one thing to make the older children's clinic a success. It is surprising to see how much pride and perseverence children of this age will develop in the performance of routine hygienic duties if they are handled intelligently and their trustfulness is not betrayed.

### PAYMENT OF A STIPEND TO CLINIC PHYSICIANS

We have found it advisable to pay our doctors, in both the infants' and older children's clinics, three dollars a session. This is, of course, a small remuneration for the amount of work involved, but it helps to make the men feel that their services are appreciated, and at the same time gives them a feeling of responsibility with regard to following suggestions concerning the conduct of their clinics. Examining from thirty to sixty babies in an afternoon is hard work, and is bound to become somewhat monotonous to even the most enthusiastic person. Most of our doctors are young men who are not yet too busily engaged in practice to spare the time. To some of them the small salary which we are able to give is a distinct advantage, for three clinics a week will pay a moderate office rent, and while they might find more remunerative work, the fact that they are getting valuable experience as well as a small amount of pay helps to make them feel satisfied to continue. I am sure that it has a very definite value in inducing the men to remain in charge of a clinic longer than they would do otherwise, and so raises the general level of efficiency, for they are more valuable to us as their experience in our work increases.

### CO-OPERATION WITH HARVARD POST-GRADUATES

At the suggestion of the Graduate School of Medicine of Harvard University, we have assigned several of our clinics to graduate students. They are men who have been in active practice for several years, but who have returned to the School to take up a year's course of graduate study in children's work. This arrangement has been mutually helpful, especially since it has been associated with instructions to groups in the clinics, thereby making use of a large amount of valuable clinical material. During the last eight months we have been doing research work on a feeding problem, getting figures from a large number of babies, and have at present a full-time paid worker collecting the results which we hope to publish soon. In addition we have started a second piece of research work, having to do with the cellular elements of the blood during infancy, in charge of a man with special training in that field.

### VALUE OF THESE CLINICS

In reviewing our efforts in various directions it seems evident that attention paid to the development

of clinics for older children will bring the greatest returns, not alone because the children need supervision, but because the problems associated with that work must be brought much nearer solution than they are at present, before the great interest which has lately been aroused can be utilized with efficiency.

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Concerning the Baby Hospital Association of Alameda County, California, Miss Bertha Wright says:

Throughout the county we have established well baby stations. At present there are three of these stations, but we hope soon to increase the number. All children must be under school age to be accepted in our clinic, those of school age being sent to another clinic under the direction of the school nurse.

We have five visiting nurses on our staff, two for maternity and three for the babies. Our territory includes the whole county. This is districted and each nurse takes a district. Our clinic is the only one this side of the bay that does infant work exclusively. Our doctors, as far as we can get them, are trained children specialists. The hospital with which this clinic is connected has about thirty-six beds; all free cases entering the hospital must come through the clinic. When a case is discharged from the hospital, the visiting nurse is notified and a visit is made immediately to see if the treatment is being carried out and that the home is in proper condition to receive the baby.

*Maternity clinic.* This clinic cares for the expectant mothers, furnishes a nurse and doctor at the time of confinement, and has the visiting nurse supervise the care of the mother and baby for two weeks after confinement. At the end of two weeks the baby is registered in the Well Babies' Clinic and from then on until it reaches school age it is under the care of our clinic and our visiting nurses. A fee of $15 is charged for this maternity service. No patient is refused, however, because of inability to pay, but many are refused who are not willing to make any effort to live up to the standards set for them and their babies.

*Clinic fees.* In the medical clinics we have rather a unique method of collecting fees. Instead of charging a small sum for each visit, we have a membership fee of one dollar, which is good for six months clinic service. When the dollar is paid, a membership card is given the mother. This card is shown each time the child comes to the clinic and from it we get the chart number. This method saves a great deal of time and confusion. Our income from this membership I think is about equal to what we would collect from the small sums at each visit. Our average monthly attendance is about 1,100 (calls), which represents about 450 children, and our income is about an average of $350.

# Three Conferences in the South

## National Nursing Organizations

Harriet L. Leete, R.N., *Director of Field Work*

The first joint bi-ennial convention of the three National Nursing Associations was attended by 2,700 nurses. They met in Atlanta, Ga., from April 12 to 17, 1920.

Friday and Saturday before the convention was formally opened, special groups of nurses held informal round table discussions of various phases of nursing work—child welfare, tuberculosis, rural, school and industrial nursing. Each group organized as a section of the National Organization for Public Health Nursing, to which they presented their resolutions.

The Infant Welfare Nursing Section of the N. O. P. H. N. will meet with the American Child Hygiene Association in 1921, and with the National Organization for Public Health Nursing in 1922, in Seattle.

Nutritional work among children, as discussed by Dr. E. V. McCollum, of the Johns Hopkins, held the attention of the entire group interested in the welfare of the child.

The National Organization for Public Health Nursing adopted resolutions on child welfare, which indicated:

(a) That in order to give the pre-school child his best opportunity for health development, nutritional clinics and classes must be an integral part of every child welfare program.

(b) That as malnutrition is frequently due to physical defects determinable by a complete physical examination, all children admitted to nutritional classes should first receive such examination.

(c) That home control is of utmost value, therefore follow-up care should be given under the supervision of a public health nurse, augmented by the services of a dietitian.

(d) That in following out all of the recommendations made by the Child Welfare Section, organizations and personnel already in the field be made use of to the fullest extent.

(e) That all child welfare agencies strive to so organize their work and plan their records that the work of the school health officer could be made more effective by receiving from them a complete record of the child's health history and care.

(f) That a small committee be appointed by the president of the N. O. P. H. N. to standardize certain record phraseology and to make a printed report that should be available for all public health nurses.

It was recognized that training

schools must be the foundation for all nursing work. Methods and plans of improvement of training were discussed, including a recruiting campaign to meet the present shortage of student nurses, and plans were presented by the League of Nursing Education, and endorsed by the joint session of the National Organizations.

The responsibility for carrying on the Florence Nightingale torch was Miss Haliburton's theme. "We, public health nurses," said Miss Haliburton, "are on trial as never before. We cannot fail those who have given us the vision and expect us to 'carry on.' Florence Nightingale first lighted our Public Health Nursing torch. In the great emergency caused by the War, our Red Cross and Army Nurses picked it up and carried it so finely, so steadily that it flamed high and the whole world noted it. (They have made us proud, indeed, of our profession!) Now, the torch is passed to us. The present emergency is equally great. We must not fail. Yet, I believe there is a very real danger of failing unless we face frankly this question of supply and demand and take steps promptly to meet it to the best of our ability."

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## The Southern Mountain Workers' Conference

The eighth annual conference of the Southern Mountain Workers brought five hundred of these leaders to Knoxville, Tennessee, on the sixth of April, 1920.

For two days, the dominating spirits in the social, religious and educational work among the southern mountain people discussed with fervor their peculiar conditions. The conference was small enough to bring people close together. A strong undercurrent of deep spiritual feeling ran throughout all the meetings.

This year, special attention was given to health work. The need of more public health nurses is keenly realized all over the mountains. There was much discussion as to how the maternal death-rate may be lowered where so many untrained midwives are at work.

The mountain people are deeply concerned with the question of spreading a new publicity—based on facts—rather than fiction. They feel that the "Fence Rail Club" where neighbors stop to advise and plan with one another about their work is more characteristic of mountain life than the usual literary stories.

Great attention must be paid to road building if the mountain people are to make rapid progress. Said one man in the heat of his argument for good roads, "I believe you could christianize Jeffries Hell itself by running a pike road through it."

The State Superintendent of Public School in Tennessee pleaded

for the responsibility of the State in education showing how unfair and unwise it is to leave this question to the various localities.

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## National Conference of Social Work, April 14-21

Richard A. Bolt, M.D., Gr.P.H.

*The Keynote.* The keynote of the Conference of Social Work at New Orleans was community service, with a major chord of child welfare, health (including mental hygiene) and problems of the immigrant. One always feels that the "program" of such a meeting is going to yield a wealth of social wisdom and is agreeably surprised to find that on the contrary the "program" is but the loom upon which is woven the warp and woof of varied human experiences. Under the stimulus of Southern hospitality, the Conference fairly oozed good fellowship.

*Finances.* The general business session of the Conference seemed to draw the members from all parts of the country into closer sympathy and understanding. The President, Owen R. Lovejoy, backed on the platform by his entire executive committee, here presented a statement as to the financial condition of the Conference. He challenged them to meet an accumulated debt of $8,000. Immediately, a member "from Missouri" said he would be one of a number to subscribe $100. From all parts of the room came pledges of affiliated societies, at times bidding against one another, until in about half an hour over $8,400 was raised.

*Health and the Immigrant.* The Division on Health was full of interest and provoked considerable discussion. Special health problems of the immigrant were taken up at one of the sessions. Dr. Caroline Hedger of Chicago, in presenting this subject, said that we expect too much of the foreigner, and we do not study enough his individual possibilities. "The point of view of health must be approached from the point of view of the neighbor." "How far should the screws be put on the neighbor" in developing a health conscience? Only so far as to develop his responsibility. We should aim to "tie the ends of the crevasse" in the levee of neighborliness.

Dr. Donald B. Armstrong of Framingham, in pointing out some of the essentials in community health organization, said we could learn a great deal from the foreign-born. We should pay more attention to personal hygiene and not over-emphasize "household equipment." A community program should be very carefully mapped out to suit each individual locality.

# The United States Public Health Service

## Field Investigations in Child Hygiene and Mental Hygiene

TALIAFERRO CLARK, M.D., *Medical Officer in Charge*

LONG recognized as one of the most important features of public health and preventive medicine the United States Public Health Service is today conducting eight constructive investigations and surveys in child hygiene.

The work is so varied in its character it would be rather difficult to describe it except by taking up each activity separately.

First and of extreme importance is an investigation of the usability of dried milk powder which has been in progress at Boston, Mass., since August, 1919, and will continue for the remainder of the present fiscal year, which ends July 1. In this work the Public Health Service is co-operating with the Boston Baby Hygiene Association, Dr. Fritz Talbot, of the Department of Pediatrics of Massachusetts General Hospital, and Dr. M. J. Rosenau, head of the School of Preventive Medicine, Harvard University.

While the experiments have not been completed it may safely be said that so far they have been most successful. Working with bottle-fed babies only, all under six months old at time of enrollment, the investigators have established the usability of reconstructed and reconstituted milk that is unquestionably beneficial. The importance of this may be better realized if it is understood that it may soon be possible to supply milk for babies in tropical and semi-tropical countries where there are no cows, or where the milk is dangerous. Under the process being perfected as the result of these experiments, the baby in our insular dependencies or in China may be supplied with a milk as wholesome as that which comes from the finest American dairies. Aside from making possible the saving of thousands of baby lives throughout the world it will enable the dairyman to use profitably large quantities of milk which formerly have been wasted.

As a result of the weighing and measuring of 10,000 selected school children in the City of Baltimore, under the direction of Prof. E. V. McCollum, Johns Hopkins Medical School, approximately 1,500 were found markedly underweight. These 1,500 children have been given a careful physical examination by officers of the Service for the purpose of determining the role of hampering physical de-

fects as the cause of malnutrition. In co-operation with the United States Public Health service these children are now being studied further. One group, under the direction of Professor McCollum, will be given careful supervision at home, including advice to the mother regarding personal hygiene of the individual child, the kind of food which should be purchased, regulation of the hours of sleep and such other forms of supervision which may be indicated in individual cases. In other words, it is proposed to attempt by practical means, entirely within the scope of the average parent's ability to carry into effect, to overcome the effects of malnutrition now manifested by the children under supervision.

In another group an effort will be made to see what effect the correction of the remediable physical defects will have in improving the child's nutrition. This group, therefore, will consist of children suffering from the grosser and more obvious physical defects. It is proposed to utilize the existing dental and medical facilities in the City of Baltimore and have these defects corrected, by and with the consent of individual parents. Children will be weighed and measured at regular intervals in order to note the improvement which may follow correction of the physical defects.

In Missouri, at the request of the State Health authorities, an extensive field investigation and demonstration in child hygiene activities is being made by the Public Health Service. In addition to the officer in charge of these investigations a staff of seven women physicians, six women nurses, and a full complement of women field investigators, has been assigned to the work and is in the field. Selected cities, towns and rural districts throughout the state, representing typical American life are being thoroughly surveyed and accurately charted. Children of the school and pre-school age in each of the communities will be carefully examined. Such measures as may be necessary to correct defects will be recommended to the parents and the teachers, and the responsible officials are urged to provide facilities for treatment where treatment is necessary. Accurate records are being kept and a follow-up system arranged. Much of the work in this State deals with the hygiene of maternity and infancy. Efforts are being made to provide better supervision of expectant mothers and to provide facilities where mothers can secure medical advice and assistance in the care of their babies. In all these activities the aim is to establish in the Missouri Board of Health a model Bureau of Child Hygiene for dealing with the health of mothers and children. Moreover, the work is being so planned and conducted that when the present survey is completed a permanent organization will be left behind, supported entirely by the communities themselves. This survey will probably include the larg-

est group of children ever studied in America and will furnish some extremely interesting data.

In co-operation with the State Board of Health, the Oral Hygiene Unit of the Public Health Service is making a state-wide survey of dental hygiene problems in West Virginia, with special reference to school children. The unit is visiting every county seat in the state and making inspection of the mouths of a number of children attending school, demonstrating to the community the extent of the dental needs of the school population, and assisting the local communities in perfecting measures whereby dental services can be provided where such do not now exist. At the same time teachers are being instructed in the principles of dental prophylaxis. Eventually it is hoped to have the proper authorities establish a mobile dental clinic to visit the schools throughout the state. The American Red Cross is interested in this work and has furnished sufficient funds for the dental unit to give necessitous children tooth brushes and tooth paste.

In response to a request from the state and local health and educational authorities, the Public Health Service is conducting a survey of the health of school children in Cecil County, Maryland. The work involves physical examination with the consent of the parents by a qualified woman physician who is assisted by a nurse furnished locally. In addition, mental examinations are made of certain selected children who fail to make grade or otherwise present evidence of abnormality. The actual examinations are supplemented by educational health talks in the schools, a distribution of appropriate health literature to the parents of children found suffering from certain remediable defects at the time notification cards are sent to the parents of such children. This work is even now bringing forth desirable results as manifested by an awakened interest on the part of the local authorities in the health of the school children and the employment of a school nurse to assist in these examinations and to do follow-up work.

On request of the Delaware Reconstruction Commission, an officer of the United States Public Health Service has been assigned to duty in Wilmington in the office of the Director of this Commission as medical director of the Child Hygiene Activities. He has under his supervision a number of children's clinics and health centers already established and will advise and assist in the establishment of others. In addition, he will exercise general supervision of medical inspection of school children about to be undertaken in the state in cooperation with a number of authorized and volunteer agencies. Plans are now under way for interesting studies in the mental and physical status of children engaged in industry and for the establishment of a mobile child clinic designed for

service in the outlying districts of the state.

On request of the Judge of the Juvenile Court of the District of Columbia, officers have been assigned to the Probation Office of this Court for the purpose of making physical and mental examinations of juvenile delinquents and supplying the Court with information relating to the physical and mental status of such delinquents, to be taken into consideration in arriving at judicial decisions. Not only will each child coming before the Court be subjected to an intensive physical and mental examination, but these will be accompanied by careful medical-social follow-up work, with a view of determining the influence of the child's family and environment in relation to his delinquency and to his physical condition, and for use in the application of proper correctional and training methods.

The University Extension Department of the University of Oregon, with the approval of the State Health Officer, invited the United States Public Health Service to co-operate with the University in making a survey of the extent of the delinquency, dependency and feeble-mindedness problems of the State from the standpoint of mental hygiene. These investigations were authorized at the last meeting of the State Legislature. This survey is unique in a number of respects; thus it is really made by the communities themselves, under expert direction, and when necessary with the active participation of the expert. Moreover, the survey will probably be the basis for advanced remedial legislation by the State of Oregon. Under the State constitution, all new legislation involving appropriations must be submitted to the people for a referendum vote; hence the survey now being made may be counted upon to constitute an important measure for educating the people in public health.

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DR. RICHARD M. SMITH, OF BOSTON, says: "CORRECT DEFECTS—DON'T MERELY DETECT THEM. For many years we contented ourselves with listing defects in school children, and doing nothing about them. I hope we will not make the same mistake with reference to children of pre-school age. If we are just going to go on for ten years or fifteen years listing correctable defects and don't correct them we will just be repeating our previous mistakes. While we are creating machinery for detecting mistakes, we must at the same time devise methods for correcting them. We have got to see that there are enough clinics to take care of these bad teeth and that tonsils that are diseased are removed."

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# MOTHER AND CHILD

## A MAGAZINE CONCERNED WITH THEIR HEALTH

Volume 1 Number 2


AUGUST 1920

PUBLISHED BY
THE AMERICAN CHILD HYGIENE ASSOCIATION
BALTIMORE

# MOTHER AND CHILD

## A Magazine Concerned With Their Health

Published by the American Child Hygiene Association
1211 Cathedral Street, Baltimore, Maryland

VOL. I AUGUST, 1920 No. 2

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CHILD HYGIENE WORK IS EDUCATIONAL WORK

# MOTHER AND CHILD

A Magazine Concerned With Their Health

VOL. I AUGUST, 1920 No. 2

## The Argonne Association

### An American Work for the Orphans of France

ROYAL STORRS HAYNES, M.D.

DURING the summer of 1918, the Children's Bureau of the American Red Cross in France undertook to send from Paris into the country several hundred delicate children to escape the dangers of the air raids and the bombardment of the long-range gun. This was a continuation of what the Red Cross had been doing since 1917, when "The Yanks Are Coming" was only a song, and Chateau Thierry and Belleau Wood unwritten pages of a noble story.

All summer, on the shores of the Mediterranean, in the mountains of the Midi, in the fertile Loire valley, or on the rocky coast of Brittany, nearly a thousand children were cared for and many restored to health. As the time came to bring the children home, it was felt by those in charge of the Children's Bureau that something lasting ought to result from this enterprise. The opportunity to do something for children without parents seemed too good to lose. The law

of July, 1918, making every child who had lost his means of support as a result of the war a ward of the government (pupille de la nation) had just been passed. Even then France's problem of caring for nearly a million war orphans was being foreseen. That this problem might be met, that such children should be secured the rights which war had jeopardized, was the desire of all interested in the result of the war on the future generation. Care for dependent children in homes with medical supervision and a concern for their moral development, seemed a fit task for the American Red Cross. It was believed that the example of such care would affect the treatment of the growing number of war orphans throughout France; for whatever the Americans did was widely known, and in the kindly fashion of that appreciative nation, was accepted by the French as the right way to do.

So it was determined that at one of the centers where delicate children had been placed during the summer, namely, at Dun-sur-Auron, in the Cher, near Bourges, such a work should be begun. Dun-sur-Auron was chosen because in that town was a devoted French physician, Dr. Antony Rodiet, who believed in home care in the country for city children, and who appreciated the principles which should underlie such care. It was contemplated that several years would be necessary to show what good results proceed from proper care and what improvement over the average boy and girl might be expected to result from it.

Then came the armistice, foreshadowing the time when the American Red Cross must withdraw from France, whose privileged guest she had been through so many trying months.

This determined those who were engaged in this work at Dun-sur-Auron to organize an association to continue it. They realized the sacrifices which France had so freely made; and desired to have the work an American contribution toward humanity's debt to France, not by any means paid. They took pride also in the achievement of American men who with determination which would not be denied had fought through the country west of Verdun. It seemed fitting, therefore, that this new American effort for the future of France should recall what Americans had endured to secure that future. The name of that almost impenetrable forest where so many of our men had died was ringing in all ears, as it will not cease to ring in years to come. Its very sound awoke memories of brave young American lads; it had become symbolic of that service which, in another way, was to be carried out in the Cher. This name was chosen; and The Argonne Association came into being.

In March, 1919, it was incorporated under the law of France as an association for the care of chil-

dren. Upon its committee were enrolled as honorary or active members, some of the most eminent French public men and physicians, and several Americans residing or working in France. It was desired not only to obtain excellent results in France, but to establish a type of proper care for dependent children which may be copied elsewhere This it was possible to do in France.

Homes in Dun-sur-Auron
The Argonne Association places French war orphans in the homes of Dun-sur-Auron

With a million war orphans to be cared for, with resources depleted by five years of struggle, France is grateful for such aid as the Argonne Association affords, and is glad to contribute whatever assistance its government and its people command.

For a permanent organization to establish a type, a larger work was necessary than that originally started. Provision had to be made for the care of children of all ages, even to the youngest. To fulfil what seems to the Association the duty of organizations caring for dependent children—to train them to earn their living before discharging them from custody—instruction had to be provided for those children who had finished the schooling required by law. The work now embraces three sections; the first, or "cercle des enfants", for infants and toddlers up to four years old; the second, or "colonie familiale", the original establishment at Dun-sur-Auron, for children of school age; and the third, called "cours d'apprentissage", to emphasize the vocational training it offers, for the adolescents.

At present the Association cares for two hundred children. It is possible that three hundred will be the number ultimately. To take more than that is thought inadvisable. The Association does not aim to care for a very large number of orphans; rather to care for a number sufficiently large to establish the validity of its methods. It believes this will accomplish more

good than to receive so many children that their care must be either incomplete or poor.

The first section is located at Mandres, fifteen miles southeast of Paris. Here the Association owns an excellent house which it uses as a hospital and an instruction center. The little children are placed in homes around or in Mandres. Their care in all details of hygiene and nutrition is closely supervised by a trained nurse. This nurse lives in the Association's house and is the directress of the whole section. She visits in the families, oversees the care given by the fostermothers, and brings to the center infants who need especial attention. She also gives instruction in the care of infants and children to the older Argonne girls who come from Beaubourg for this instruction as a regular part of their training.

From Brunoy, two miles and a half away, comes the doctor who is responsible for the medical care of these children. He is a trained pediatrist and has in addition the aid of a consultant attached to the Ecole de Puericulture of Paris, an institution founded jointly by the American Red Cross and the Faculty of Medicine of the University of Paris to promote child welfare activities.

In addition, in common with all three sections of the Argonne Association, this first section is under the administrative control of the Paris office. This office reports on the progress of the work both to the officers in France and to the executive committee in America.

The "cercle des enfants" is unique in France, and for dependent children, probably in the world. It is in a sense the outgrowth of the idea of the Speedwell Society in Morristown, New Jersey, which has for so many years given this type of care to undernourished children.

The second section of the work, that at Dun-sur-Auron, has proceeded along the lines laid down in 1918. The children are all war orphans; they have been selected in cooperation with Les Pupilles de la Nation, organized to carry out the provisions of the law of July, 1918, already mentioned. These children may have mothers but all have lost their fathers. Willingness to leave the child in the charge of the Association for an indefinite period is required so that results may not be vitiated by short stays and frequent removals. Mothers or relatives may, however, visit the children and write to them, while a child's progress may always be ascertained at the Paris office.

Before being admitted to the "colonie", the children submit to a physical examination when defects and disease are noted and steps taken to remedy them. When they arrive at Dun-sur-Auron, they enter the infirmary for observation in order to prevent the introduction of disease. Then the children are placed in homes in the vicinity,

homes most carefully selected, clean and comfortable.

Now begins for these children a family life. The foster-mothers are devoted and become sincerely attached to their charges. The children go to the village school and play with the village children; they dress and look like other children. The homes, and the life of the children in them and at school, are carefully supervised by a visitor who knows all about her wards and their progress. She is trained to detect incipient illness and sends the children who need care to the doctor.

The visitor and her charges

The Argonne children have a community life in connection with the center where they usually go after school. This center has been very carefully installed to provide medical examinations, hospital care, baths and supervised play. A small house out on the edge of town has been leased. When the Argonne Association took this house it was being used as a convalescent hospital for French soldiers. The entire building was thoroughly repaired and painted. In it are eight rooms, among them an infirmary, a room for isolation of contagious cases, a doctor's consultation room, a bath room and a room used as a dining room and room for sewing classes. There is running water, thorough drainage and a modern sanitary equipment. The house is extremely simple but delightfully clean and airy and it fuctionates perfectly. (See picture p. 51.)

In the playground behind the house the children gather for play on fair days or in the old barn if the weather be inclement. The boys work in the garden after school throughout the year. In the summer they all go in relays to swim in the Auron. Their life at Dun-sur-Auron is notably happy; on the other hand, the careful

supervision, both medical and moral, which they receive is showing its effect in health and character. Provision has been made for necessary operations and for dental care, and it is felt that in many ways these orphans are more fortunate and better situated than they would have been in their own homes.

Such is the life of the Argonne children through their school years. During this time, ideas of industry, love of a simple life and of the country and the soil are inculcated. There is a "back to the farm" element in the Association's work. France lost a million farmers in the war; and still others have been attracted to industrial pursuits. France needs agricultural workers; and city children need country life. It has been noted that after a year at Dun-sur-Auron the point of view of the children changes and where they all have thought of becoming workers in cities, they now love the country and wish to live there.

The third section of the work of the Association follows on the stay at Dun-sur-Auron. It was at one time the intention of the Association to operate its own farm. It may yet do so; but its idea was adopted by the Ministry of Agriculture which established a number of farm schools for adolescents. To these the boys of the Association are sent, so that for the present at least an Argonne Association Farm is not essential. There will be an occasional boy not fitted or not caring to learn to be a farmer; and there are others suited for agricultural pursuits but not strong enough to do heavy farm work. For the former, provision has been made for courses in training in other vocations; for the latter, the garden-school at Beaubourg gives training in lighter forms of work on the land.

It was for this class of boys and for all the older girls that a school was projected where they could learn such occupations as gardening, horticulture, dairying, poultry-farming, etc., the boys learning forestry and the care of estates and the girls being grounded in cooking, housekeeping, sewing, the care of young children, and all that may fit them to become good wives and mothers. By rare good fortune a suitable place was found at Croissy-Beaubourg, about twelve miles from Paris and near Mandres. Through the generosity of the owner and a group of American friends, this estate of seventy acres, with fine buildings, fully equipped and in perfect order, was purchased.

The advantages of Beaubourg are many. Its proximity to Paris makes it possible for the children to go there for special courses in occupations such as dressmaking, millinery, stenography, typesetting, etc. It is in a healthful region and near large agricultural exploitations. There is a large house where the girls live, with running water, hot-air heating, bath rooms, rooms for dormitories and class rooms, and a wonderful kitchen. There is

Back to the farm

another house where the boys live near the barnyard. The barnyard is a square of stone and stucco buildings with facilities for rabbits, chickens and pigs; for a herd of cows, for horses and wagons, etc. Adjoining is a fine, walled garden of two acres, carefully tended for twenty years. There are many fine pear, apple and peach trees. There are strawberries and raspberries and grapes; and a great variety of vegetables. It is expected that the produce from this garden will provide a revenue for the school. From the forest, which needs cutting out, and from the large hay crop will come other revenue. There is additional land which can be used for the raising of food for the young workers and storage space for keeping it through the winter. The care of the grounds, the flowers and the shrubs will train the boys to become superintendents of estates. The "orangerie", used as a stable by soldiers during the war, for Beaubourg is just south of the extreme limit of the German advance at the Marne, will some day be fitted up for courses in manual training. Everything at Beaubourg although of great beauty is practical and adapted to the purpose in view.

Economy is the plan of the Argonne Association as much as completeness. It is important that a work in a foreign country shall be susceptible of duplication within the means of organizations that are indigenous. The budget of the Association on a basis of two hundred children, calls for an outlay, all overhead included, of an average of less than 1750 francs per child per year. Very careful administrative and financial reports are prepared. All accounts are audited by certified public accountants. There are no salaries except to workers.

The work the Argonne Association is doing, it is doing first for

the children of France and second for all children. It has been the aim and hope of the founders of the Association that from the work may be developed an experience which shall be useful in the care of dependent children anywhere, in the United States particularly. The need of our own dependent children and the value to them of this demonstration of proper care has been kept constantly in mind. This value has been recognized by every authority on child welfare who has studied the plan. The work is in successful operation. Already its organization can be regarded as more than justified.

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# The Philosophy of the Nursing Bottle

JOHN FOOTE, M.D., F.R.G.S.

GEOLOGISTS reconstruct the earth as it was a million years ago from a pebble or a handful of clay. Anthropologists read a fairy-tale or a nursery rhyme and tell us that people who lived in caves in Southern France many thousands of years ago must have been our ancestors because they told their children the same kind of nonsense as our nurses related to us. Sociology is a comparatively new science, but it too is constructing mosaics of ancient life from tiny bits of information taken out of tales, poems, plays and pictured representations and shaped together until the finished product becomes what is called social history. And while this must seem an inexact science, based as it is on the influence of human instinct, passions and beliefs, on the conduct of men and women in their relation to one another, yet here too the history of the race shows certain definite causes which produce identical effects with a rhythmic certainty characteristic of a scientific law.

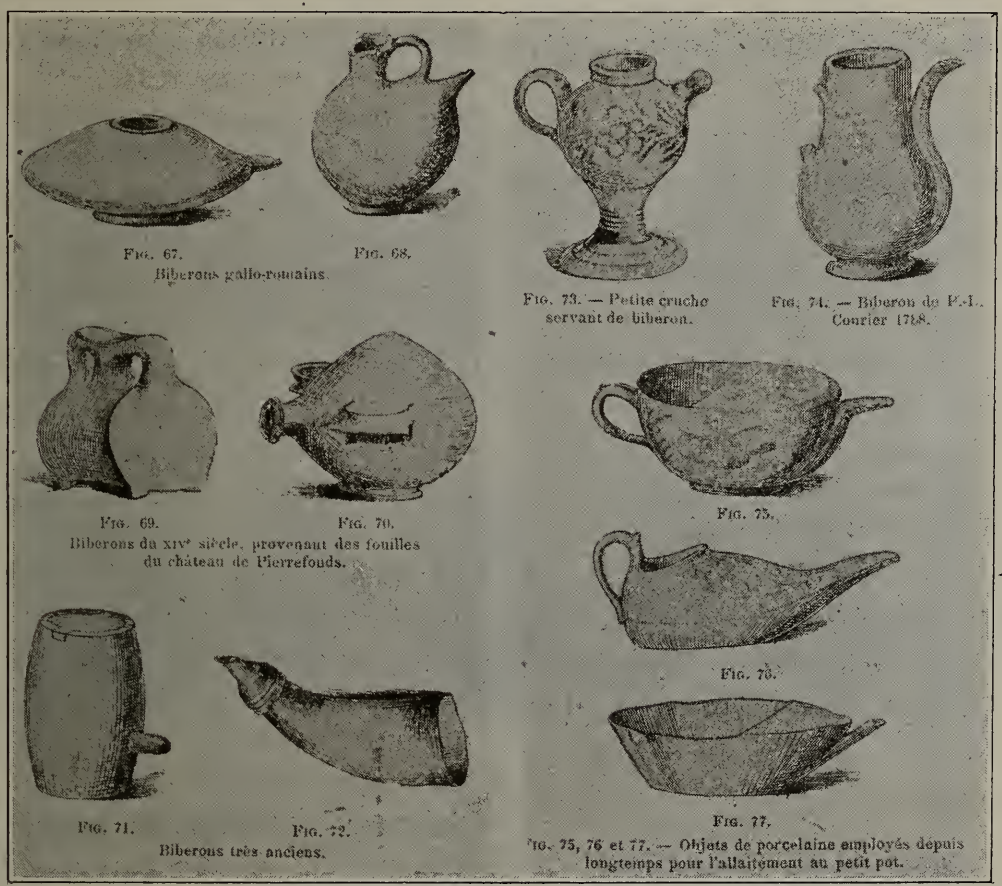
One of these cyclic reactions may be stated almost as definitely as a mathematical problem:

When any nation engages in an extensive war, a loss of national wealth and resultant high taxation is followed by an increase in infanticide.

### NATIONAL DECAY IDEAOGRAPH

Another sociological and economic reaction well borne out by history, which I have every reason to believe is almost a "law" though I have never seen it definitely formulated, is to the effect that whenever a nation becomes the seat of a rich and degenerate autocracy where "wealth accumulates and men decay," not only infanticide increases but maternal nursing is replaced by artificial food, and some

form of the nursing-bottle appears. The nursing-bottle might well be made an ideograph for national decay; in time and space, from its earliest appearance to its final evolutionary stage, this utensil has appeared a long time after high-born ladies have refused to be burdened with the feeding care of their offspring. In fact, the use of the women cast about for some mechanical means of giving food to the infant in order to replace or to supplement breast-feeding. It is almost apparent that the earlier nurses were not substitutes for, but rather were used as an adjunct to, the product of the wet-nurse. This use was not always found among the most noble and most affluent




Ancient Forms of the Nursing-bottle. (From Hygiene Infantile. Auvard et Pinget)

nursing-bottle in history seems to come invariably after a period of great social dissipation. The wet nurse has always been an important figure in the history of infant feeding. Among the wealthy nations of antiquity, as wet nurses became more and more in demand, men and ladies, but probably among their less noble and less wealthy imitators. Just as in barbaric times one could estimate the wealth of the nomad by the size of his herds, so the wealth and nobility of these ancient dames might be counted by using a numerical wet-nurse index.

### THE WET-NURSE MARKET

Soranus of Ephesus, wise obstetrician of the Second Century in Rome, said that wet-nursing was not better than maternal nursing, but was more expedient for the mother. He advised the mother, whenever possible, to have two or three wet nurses, so that if one was not well, or her milk became unsuitable, one of the others could be employed. In the official establishment of the Royal Nursery in England in 1779 we find provision made for "eight wet nurses, who had an annuity of 200 pounds each". As the English teacher in this nursery establishment received only 100 pounds, sixteen hundred times as much was paid this "herd" of wet nurses as the teacher of English received. We may correctly assume that the demand for wet nurses at this time exceeded the supply, and that the less wealthy and less noble mothers may have had difficulty in securing more than one or two capable nurses of this description.

### GODDESS AND MILKMAIDS

In the graves of Egyptian children of dynastic times no trace is found of the nursing-bottle. The ancient Egyptians, living in the rich agricultural region of the Nile, were affluent, and treated their children with kindness and consideration. Infanticide and exposure of the new-born child do not seem to have prevailed in these earlier days. In the later, Alexandrian period, records are found of the abandonment of children and the drowning of females, and the Cairo museum exhibits a clay nursing-bottle with a long neck that belongs to the second century. Cow's milk was known and used by the Egyptians; the Cow-goddess, Hathor, was a much-esteemed female divinity. In fact, since a great number of respectable feminine divinities were venerated, we may reasonably suppose that a nation which invented lady gods to preside over the birth and nutrition of its infants, and pictured the great Isis nursing her son, Horus, at her breast, would prove to have been reasonably kind to its children. History seems to verify this assumption. Cow's milk was not used for feeding very young infants in the Egyptian nursing-bottle; some contracts of the Alexandrian period concerning infant nursing specify that the nurse must feed the baby at the breast for six months and supply good cow's milk for a longer period. The laws contain penalties for tardiness or failure to deliver this milk-supply on the part of these Egyptian milkmaids.

### OVER-RIPENED CIVILIZATION

Babylonia or Assyria do not seem to have used breast-replacing foods early enough to have required bottle-feeding. Among the Jews, breast-feeding was universal. Wet-nursing was a common practice with the Greek ladies of ancient days, and Spartan nurses were

much esteemed for this purpose. It was customary among both Greeks and Romans to bury with their children toys and utensils of various kinds, just as when infants were abandoned by their mothers, some little trinket was left with them as a remembrance gift. From the tombs of children in such Roman colonies as France and Spain, numerous clay utensils of the nursing-bottle type have been found. These belong to the later days of Rome—not so very long before Aulus Gellius, the Roman lawyer, felt impelled to put into the mouth of a Greek philosopher whom he called Favorinus, a bitter denunciation of the practice common among Roman nations of engaging slaves or hirelings to nurse their infants. Here again in the mad, rich Rome from the days of Augustus to the passing of the philosophic Marcus Aurelius, we find an over-ripe civilization, unequal distribution of wealth, and a diminishing aristocratic ruling class —and the nursing-bottle.

Roman Nursing Bottles, Wiesbaden Museum.

### TWO POETS OF LACTATION

Observe, then, the nursing-bottle trooping along always in the wake of the wet-nurse and in fact a considerable distance behind her. The "high cost of wet-nursing" seems to have been a determining factor in this tardy appearance of the bottle. In England and on the continent of Europe, it is certain that animal milk was not extensively used as an infant food until the eighteenth century. An Italian gentleman and soldier named Tausillo besought the high-born ladies of Italy to nurse their own infants, in a poem written about 1530, in which he neatly plagiarized all of

Aulus Gellius' arguments. Scaevole de St. Marthe, a French gentleman, composed in 1584 a Latin poem called *Paedotrophia,* in order that children whose parents read Latin would at least not have classical blood polluted by foreign milk. For both these gentlemen believed the care given by fine ladies to lap-dogs. The substitute for the bottle at the time was the flour-ball or flour-teat, a lump of boiled or baked flour in a piece of cloth. The early English writers on nursing, such as Phayre and Peachey, also quoted Gellius and deprecated

Hans Memling, a Flemish painter of the 15th Century, immortalizes the wooden pap-spoon

Gellius statement to the effect that milk was only blood turned white. Both of these writers deplored the fact that mothers neglected their offspring. St. Marthe criticised the dancing craze of his day and the cow's milk as a food for infants. In the sixteenth and seventeenth centuries a hollowed cow's horn with a stitched parchment or a piece of sponge for a nipple is spoken of, and Cadogan, who wrote

much later, said he believed that "its use caused children to have the watery gripes." That was probably stating the case very mildly indeed. But Cadogan lived during a period when very few physicians believed in teaching the care of the children. Even the great physician, John Hunter, was quoted as having said, "Nothing can be done for sick children."

THE NURSING BOTTLE'S FAMILY TREE

Preceding the bottle on the continent and in England, are encountered the feeding-spoon and the feeding-pot. In England of the seventeenth century references occur to another feeding contrivance known as the "boat". The feeding-spoon was a large metal spoon with a cover and a narrow pointed end. Usually it was made of pewter. The rich used silver ones, and so it came about that to say a child was "born with a silver spoon in his mouth" was equivalent to calling him rich. The "boat" was made of china or porcelain, and was identical, except in size, with the gravy-boat of our modern china dinner sets. Both the feeding-spoon and the boat were designed and used to teach the infant to take down thick starchy gruels, and bread mixtures known as "pap" and pandana. It is not an unimportant coincidence that rickets became widespread in England in the seventeenth century. Glisson described it in 1650; and we know that overfeeding and improper feeding with starchy foods is cited as one of the causes of this condition. A contrivance not unlike the nursing-bottle appeared on the continent later in this century and was called a "feeding pot". It was like a miniature tea-pot, with a sponge attached to the nozzle. A nursing bottle made from wood, with a metal stopper surmounted by a sponge, was used in Germany at about this same period. Many glass nursers appeared on the continent in the nineteenth century, some of them highly decorated and made from colored glass. Significance is given to the time of the appearance of the nursing-bottle in England by the fact that the sixteenth century poems against wet-nursing, previously alluded to, were both translated into English in the eighteenth century. Wet-nursing at this time was an almost universal custom among English ladies, as it was abroad. The reactionary nobility of Georgian England and Bourbon France were in the main intolerant of the poor, and mindful only of their own pleasures and comforts, while the seeds of the French Revolution were germinating in Paris. The stage was again set for the nursing-bottle—and it did not fail to appear.

The utilization of glass in bottle manufacture was an improvement over clay and wood as a material for fashioning the nurser, but the greatest difficulty lay in finding a suitable material from which to make a nipple. For a long time the pharmacists sold heifers' udders, which were kept in alcohol, but after being used awhile these

inevitably became putrid. It is strange, but none the less true, that if a supposedly crack-brained inventor experimenting with "gum elastic" and sulphur had not accidentally dropped some of his mixture on a hot stove, and so discovered that the sticky "elastic" could be vulcanized, the rubber nipple might not have been invented and infancy might have been spared much suffering brought about by the ease with which the process of "putting him on the bottle" was accomplished, once a suitable nipple material had been found.

The *biberon* of the French with coils and springs came about in the seventies and was a wonderful contrivance. The death-trap with a small nipple and a long rubber tube was the next simplification—requiring as it did a brush for the tube and another for the bottle. The so-called sterilizer type with a larger nipple, as well as very wide cylindrical bottles, have been with us now for a long time and are probably permanent forms.

As our knowledge of child hygiene becomes more diffused, and our social sense more highly developed, mothers will come to realize that the use of the nursing-bottle, except in a very small minority of instances, should be only that use which the ancients originally made of it—making it serve as a supplement to rather than substitute for, maternal nursing. More and more we learn to apply our knowledge of the philosophy of the history of the nursing-bottle, and more and more we hark back to the truth expressed in *Paedotrophia,* by the poet of the sixteenth century:

A sage declared, and with his words I'm pleased,
"No mother should from nursing be released."

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## Child Welfare Section of the National Organization for Public Health Nursing

At the convention of the National Organization for Public Health Nursing held in Atlanta on April 9, 1920, a Child Welfare Section was formed with fifty members enrolled. The purpose of this Section is to stimulate interest among public health nurses and lay members in the special problems of the welfare of all children of pre-school age (pre-natal to six years) and to provide for the discussion of such problems.

Any member of the National Organization for Public Health Nursing may become a member of the Child Welfare Section by sending her name to the Secretary of the Section, Miss Harriet L. Leete, 1211 Cathedral Street, Baltimore.

# Views of Child Welfare

THE tendency to specialism in the various branches of medical practice is more distinctly marked each year as the field of medical knowledge widens. Child welfare work is a comparatively new science and it is the rule rather than the exception to treat in our child welfare clinics minor disorders of nutrition and other ailments. In England, perhaps because of the increased extent and longer duration of child hygiene work, the tendency to specialize to the extent of limiting child hygiene work to the proper guidance of well children is manifest. In an address* recently delivered at the first meeting of the Society of Medical Officers of Maternity and Child Welfare centers at Bedford College, Regent's Park, London, Dr. Hector Charles Cameron, Physician in Charge, Department of Diseases of Children, Guy's Hospital, London, takes an advanced stand on this and other questions, relating to the proper organization of child welfare centers. While many American workers will not entirely agree, at least in practice, with Doctor Cameron, his views are none the less interesting, and show a broad viewpoint. Doctor Cameron said in part:

"I believe very strongly that success is denied to a very large number of centers because the distinction between curative and preventive work is not recognized. Under the name of 'Infant Welfare Work' more often than not, there are combined three separate branches of activity. Many infant centers do not confine themselves to the care and inspection of healthy children, to supervising their management, diet and clothing, to encouraging breast-nursing and perfecting its technique, and to educating the mothers to an appreciation of health and pride in it. They prefer to act, or are forced to act, as well, at the same place and time, as centers for treatment, especially in inviting the attendance of children already suffering from malnutrition or infection. With these two different and entirely incompatible functions is commonly combined a third. They act as distributing centers for doles of milk, food preparations or clothing, dispensed free of charge or at reduced prices. Now, in my opinion, it is very easy to recognize the deplorable result of this admixture of functions. The mothers and the general public are confused in their notions as to the object and aim of the welfare centers. I should like to see displayed in every center a statement that we doctors are generally powerless to undo all the ill-effects of chronic infan-

*Published in "The Lancet," Vol. I, No. 17, p. 901.

tile ailments, but that, with the help of the mothers, we can do much to prevent them. It was because of the complete and proved failure of hospital out-patient departments and dispensaries in this respect that we were led to investigate the possibilities of preventive institutes, and found them of value. If sick and ailing babies are to be seen side by side with those that are thriving it is to be expected that the sick will monopolize time and attention to the exclusion of the healthy, and inevitable that many mothers of healthy children will then ask themselves of what use it is to continue attendance. I fear that mothers generally have little idea of the true purpose of a center. To too many of them they are places to which they may take the baby for advice and treatment when a long process of faulty management has finally resulted in infection. I am not unmindful at all of the needs of the children whose health is permanently below par. No doubt, both the sick and the whole need a physician, and the same organization and the same building may have to be used for both purposes. But in all that we do it seems to me necessary that we should see to it that the distinction between the healthy and the ailing is clearly impressed on every mother. We may define the healthy infant as the infant who, upon the breast or upon some suitable artificial diet, proves itself capable of a steady gain in weight and of acquiring its several functions in due time. Such an infant we may be confident is acquiring day by day an increasingly high resistance against infective disorders of all sorts. If the weight fails to increase during a period of some weeks, or has fallen for any reason more than 25 per cent below the average, or if progress is persistently unsatisfactory in any other way, then, I think, that child should fall from the category of the healthy to that of the sick. I think the hours of attendance of the sick should be different, and that the mother should understand the reluctance with which we have to transfer her child from the one department to the other. Only when the child has again shown its power to thrive and gain in weight, without medicinal treatment or any profound modification from the standard diet of health, should it be readmitted. The whole atmosphere of the two services must be different. Among the healthy children the note must surely be that of congratulation and admiration and delight. When the child has to be transferred to the treatment clinic there may be hope and encouragement and sympathy and a concentrated effort to produce better results, but there can be little of the light-heartedness that is so essential in the other. A blue ticket for health and a pink one for failure with different days of attendance, and the contrast in the whole tone and atmosphere will, I think,

do more than anything else to help the mothers to realize what we are aiming at."

### DISTRIBUTING GIFTS AND DOLES

"To the other functions which it has become the rule for the infant centers to assume that of a distributing center for milk or clothing or various drugs and preparations, for which no charge or only a nominal charge is made, there are, to my way of thinking, also very grave objections. It is not to the good of the cause that mothers should be attracted by what they may be given. I have heard of instances where mothers attend more than one center to receive double gifts. I have heard of instances where mothers have been attracted away from one center to another because it has more to give. The center should know of the provision of these gifts and should recommend suitable cases to apply in order to participate, but there should be nothing to suggest that their provision is a bribe offered to mothers to attend centers. Are mothers at one center to be urged to make garments and taught to do so, and at another are they to be given a complete outfit for six pence?

"The center is worth as much as the presiding physician,' is a saying of Budin. I can imagine nothing more calculated to lower the worth of 'the presiding physician' than the suspicion that the mothers are there, not in response to what he or she has to offer, but in order to participate in the bounty. If drugs and widely advertised foodstuffs are to be dispensed, then it is to the drugs and foodstuffs that credit will be given. But if a mother does not realize that any good result is due to her own exertions, guided and inspired by the physician, then our labor is in vain. In the past few years our work has moved rapidly. In these two particulars, especially, I submit to you the movement has been in the wrong direction, and the original aim and purpose of our work have been lost sight of."

### THE DIFFICULTIES OF THE WORK

"There is no specialty more neglected in our schools and our universities that that of the study of childhood. It is a subject which is difficult to learn, difficult to teach and difficult to write about. The literature is not adequate to the theme. Certainly the textbook for medical officers of centers has yet to be written. It is not open to many of us to tour the country and visit other centers in search of inspiration and knowledge, or to indulge in a wander-year abroad. But I feel sure it is due to the relative isolation in which we work that so little clinical observation of value has proceeded from infant welfare centers, and that the advice given at different centers is often so flatly contradictory. We must urge the institution of undergraduate and postgraduate courses, though I am not at all clear who is well fitted to

conduct them. Salaried appointments are now so numerous that a special diploma in child welfare must shortly be instituted and carry with it better pay. But above all I think we should join together for free discussion among ourselves. We have the reputation of a young specialty to make, and there is no good blinking the fact, it is not made yet. We are not yet equal to our opportunities. To deal wisely and successfully with each mother and child calls for professional gifts of the very highest order. To determine in each case where success is hanging in the balance; how far inherited tendencies or congenital weakness is responsible; how far dietetic errors, whether excess of quantitative faults in the construction of the diet; how far faults of management and handling; how far infection and of what parts—all this demands a wide experience. Moreover, since it is through the mother and by means of her alone that we can work effectually, the study of the mother must be as intimate and careful as the study of the child. She must be inspired with full confidence in us; she must be allowed free speech, and every word that she says is of importance if only we can find the key to the riddle of her cryptic sayings. Always she has observed aright; seldom can she describe what it is that she has observed, and to this she must be helped. Only when she has had her say is it the turn of the medical officer to expound and draw the moral."

CONCLUSION

"Without free speech on both sides, from mother and from doctor, nothing will emerge. It is easy to pour out stereotyped good advice on points of hygiene and diet; it is easy to laugh at or deplore ignorant, fanciful prejudices of the mother; it is easy to dabble in laxatives and cough mixtures, to confiscate all dummies and most prepuces—easy, but quite ineffective. To be understanding with the mothers, to inspire and make useful the work of assistants, to train oneself to greater usefulness—none of these things are easy. Can we not help each other best by free discussion amongst ourselves?"

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## Annual Meeting of the American Child Hygiene Association, October 11 to 13, 1920

Copies of the provisional Program of the St. Louis Meeting may be had by addressing the Executive Secretary, 1211 Cathedral Street, Baltimore.

The general headquarters will be in the Jefferson Hotel. Dr. Veeder, the Chairman of the Committee on Local Arrangements, requsts that rservations be made as early as possible.

# Child Welfare In the Cannes-Geneva Conferences

WILLOUGHBY G. WALLING

*Vice-Chairman of the American Red Cross Society,*
*Delegate to the Geneva Conference*

THE Committee of Red Cross Societies called a Medical Conference in Cannes, April 1 to 5, 1919. Representatives from France, Great Britain, Italy, Japan and the United States were present; never before, it was said, had there been gathered such a distinguished group for such a conference.

The principal purpose of this conference was to bring to all the world the benefits of science in matters of health and public welfare. All the delegates concurred in the view that it was a natural and most desirable evolution for the Red Cross to extend its functions of relief during war to that of promoting public health during peace. While all other sections of the conference touched upon child welfare, it was resolved by the general conference "That the promotion of a wide extension and development of child welfare work be selected as of the first important constructive activity."

The members of the Child Welfare Section were Sir Arthur Newsholme (chairman), Professor Kenwood and Dr. Truby King for Great Britain; for France, Doctors Armand-Delille, Pehu and Pinard; for Italy, Colonel Baduel and Colonel Valagussa; for Japan, Doctors Kabeshima and Nawa; and for the United States, Doctors Hamill, Holt, Lucas and Talbot and Miss Wald.

The resolutions presented by this section and adopted by the conference recommend the statistical investigation of the local incidence of child mortality and the preparation of standardized statistics in every country; and for this purpose that active propaganda in favor of complete registration of marriages, births (including still-births), and of deaths, be instituted in counties in which this is not already established. It was recommended also that the National Red Cross Societies should collect and distribute information bearing on child welfare in any country, including the results of investigations and the reports of promising developments in administration and methods; and that research work in child welfare work should be encouraged.

All this is ancient history. But it did not, like many other meetings, simply pass into history, for eleven months after the Cannes Conference, the First General Council of the League of Red Cross Societies met in Geneva, March 2 to 8, 1920.

Twenty-seven of the thirty National Red Cross Societies which

make up the membership of the League were present; the absentees, India, South Africa and Uruguay, reported that they were unable to send delegates because of the distance and shortness of time.

DELEGATES TO THE CANNES MEDICAL CONFERENCE

Left to right: Back row: Dr. Albert H. Garvin, Dr. William Palmer Lucas, Dr. Frederick F. Russell, Miss A. W. Gill, Miss Julia Stimson, Miss Alicia Lloyd-Still, Dr. Wickliffe Rose, Dr. Samuel McClintock Hamill, Dr. T. Kabeshima, Dr. Fritz B. Talbot, Dr. Edward C. Hort, Dr. Hugh S. Cumming, Dr. Truby King, Dr. Edward R. Baldwin.

Middle row: Dr. Richard P. Strong, Dr. Henry Kenwood, Dr William F. Snow, Sir John Lumsden, Prof. Dr. Bartolomeo Gosio, Dr. L. W. Harrison, Dr. F. N. Kay Menzies, Dr. Edouard Rist, Dr. Prof. Cesare Baduel, Dr. L. Emmett Holt, Prof. Dr. Guiseppe Bastianelli, Dr. Prof. Francesco Valagussa, Prof. Aldo Castellani.

Front row: Prof. Dr. Gamillo Golgi, Prof. Edoardo Maragliano, Sir Robert W. Philip, Dr. Ettore Marchiafava, Dr. Emile Roux, Dr. William H. Welch, Sir Arthur Newsholme, Dr. Hermann M. Biggs, Sir Ronald Ross.

Dr. Leonard Findlay of Glasgow, Chief of the Department of Child Welfare of the League, in opening the discussion in that section of the conference, said in part:

"At the present moment there is perhaps no question which is of such paramount importance to all nations as that of child welfare.

"This question was first seriously considered by Rousseau, a citizen of Geneva, toward the end of the Eighteenth Century, but it is only since the pioneer work of Budin and Variot of Paris, commenced in the early nineties, that any great progress has been made. The extent of the question has gradually

become enlarged and broadened, it has embraced the subject of eugenics, the care of the mother prior to the birth of the child, the matter of social hygiene and housing, and finally the proper methods of educating the man of tomorrow.

"Unfortunately in the past, as could only occur from the nature of things, there have been many agencies working with more or less one end in view, but overlapping and diffusing effort and not getting the results that such an expenditure of energy deserved. In the short sketch of an infant welfare unit which follows, an attempt has been made to bring under one roof and within the one sphere of activity all the agencies which are essential for the welfare of the child. It must be understood that it is not put forward as the final word on the subject or a model for all conditions and countries, but as a comprehensive nucleus embracing the essentials and with possibilities of modification and extension as conditions may demand."

It is worth recording in his own words what Doctor Findlay considered the essentials of such an infant welfare organization:

"In any comprehensive child welfare scheme the work should commence with the pregnant mother. After notification of the pregnancy, the mother would be expected to report periodically once a week or every two weeks at what we will call the ante-natal center where the necessary medical examinations would be carried out. It would be advisable to discourage all work except absolutely essential housework by the pregnant mother during the last four months of pregnancy. The home would be visited by the nurses prior to the confinement and proper provision made for the event.

"Notification of births should be encouraged at as early a date as possible, in order that homes may be visited to see that the conditions are satisfactory. It might be laid down as an axiom that no child should be fed on anything but its mother's milk without the express permission of the director of the child welfare department.

"A consultation center would be required for healthy children, where they would be inspected, weighed and measured once or twice a month and the mothers advised regarding diet or general hygiene. Statistics regarding the development of the children could be compiled which should furnish valuable criteria as regards the general question of infant mortality in the various countries.

"There would be a clinic to which all difficult cases of feeding and cases of illness would be referred. This clinic would be under the care of a doctor versed in diseases of infancy and childhood. He would require an assistant and also the help of a dentist.

"In connection with a clinic, a hospital would be required, under the director of the clinic and his

assistant. At least one nurse would be required for every three patients. A laboratory for help in the diagnosis of disease is also an essential part of the hospital.

"It would be advisable to have several convalescent homes in the country, or, better still, to arrange for boarding convalescent children in private families in the country.

"A day nursery should also be included in the work of the child welfare department. In some cases the child would remain both day and night, but it must be remembered that only healthy children enter this department. It is essential that these day nurseries should be as small as possible, and when feasible be occupied by children of different ages, so as to imitate as closely as possible home life. This department would form a good training ground for children's nurses.

"A hall should be provided which would be used for exhibition of child welfare methods, cinema demonstrations, lectures, etc."

"The consideration of the establishment of a typical child welfare unit to operate in some selected country to demonstrate the possibility of this type of effort under ideal conditions, is occupying the attention of the league officials and it is hoped that very soon some practical effort of this kind will be announced. In such countries where extensive child welfare work is already being done, the above outline may well serve as a guide for a fuller co-operation in the work."

PUBLIC HEALTH NURSING

Both in the formal discussion and even more in the informal discussion between the delegates, the very close relationship between the extension of public health nursing service and child welfare was emphasized. The need for the development of nursing training in those countries where little if any such training exists was recognized as a condition precedent to any effective work in the field of child welfare.

In the Cannes Conference, Dr. William H. Welch said in presiding over the Section of Nursing:

"No more important subject than nursing has been brought before the Red Cross Conference. We can hardly think of new activities now projected without increased nursing service. There is no field of activity in which the Red Cross Societies join but can be greatly aided by public health nurses, and no agency through which more good can be done."

In the report of the Nursing Section it was pointed out that the great service which the trained nurse has been in a position to render during this war had brought nursing into a prominence which years of peace had not given it.

Wherever the subject of public health nursing was mentioned a plea was also made for greater facilities for training. Miss Alice

Fitzgerald of Baltimore, Chief of the Department of Nursing of the League, said:

"To awaken the people to a sense of their own obligations, to create a demand for public health nursing and to stimulate each National Red Cross Society to assume an important part in these efforts are all steps in the right direction, but our services cannot end here. Many countries are facing the problems of tuberculosis, infant mortality, pre-natal and post-natal ignorance, inadequate hospital care for the sick, lack of supervision of the health of school children, ignorance of the most elementary knowledge of personal and home hygiene, and of first aid of all sorts. In dealing with these problems each country will need the help of the trained public health nurse, and this nurse, on whom such a great responsibility will rest, must be provided with special training to fit her for her task.

"This training cannot be obtained in the countries which are just starting public health campaigns. It must be only a question of time before a training school for public health nurses will be established in connection with the League; meanwhile a temporary substitute must be adopted in order to establish as soon as possible a connection between the league and the work of nurses in the different countries. This temporary substitute should take the form of scholarships which the league would arrange with the National Red Cross Societies to offer to students from each country of those enrolled and this plan would enable the students to be gathered together in some city where a well-established school for public health work already exists."

*Note:*—Since this article was written, the American Red Cross is in receipt of a cable from the League announcing that arrangements have been made with King's College for Women, University of London, for the course in question. The League has provided ten scholarships applicable for those countries whose Red Cross Societies are not as yet in condition to pay the expenses of nurses themselves and makes a request for other countries to furnish scholarships. The American Red Cross has acceded to this request as doubtless will all the Red Cross Societies in the larger and older countries. This course will begin this autumn and there should be in attendance well chosen representatives of practically all the countries of the world.

MOTHER AND CHILD
A Magazine Concerned With Their Health

Published by

THE AMERICAN CHILD HYGIENE ASSOCIATION

1211 Cathedral Street
Baltimore, Md.



AUGUST, 1920

## Co-operation

In this age of specialism, there is great danger that we may lose our broad viewpoint in health matters. This is particularly true of work which deals with the health of the child. And it is almost natural that we should fall into this mistake. The day of the child is a recent development. Fifteen years ago there were only a few who realized the appalling loss of life occurring during infancy. A study of the facts showed the enormous number of deaths occurring each summer during the hot weather from diarrheal disease. That was a challenge easy to accept. The first great efforts were directed against this phase of the problem.

But, while it was quickly shown that maternal nursing, and where this was impossible, proper feeding and proper preparation of food would save many lives, we were greatly disturbed to find that we were only dealing with a part of the problem. We learned, as we looked further, that from 30 to 50 per cent of all the babies who died had not lived a month, and that this was due to conditions acting on the child through the mother before it was born. And so the campaign of pre-natal care was developed, often as a separate activity.

With the breaking out of the war, we were staggered by the discovery that over 30 per cent of our young men were physically unfit for military duty, which meant physically unfit for hard work. They were unfit because in most cases their physical development had been neglected during childhood. The schools had developed their minds at the expense of their bodies. With the great demands on our resources, there was fear of a real shortage of food, from which the children would suffer most, resulting in another generation of physically unfit. And so this part of the problem was appreciated and attacked vigorously.

As soon as the young man and young woman enter industry, our efforts in protecting their health cease. Yet it is just at this time that a vast amount of harm can be done and also can be prevented. And so this problem is now being faced.

The danger is that each group of workers may forget that they are only attacking one phase of the difficulty. Communities are waking up to their responsibilities and are calling upon those who have been studying the problems for advice. Such communities should not be made to feel the matter is a simple one—that by starting a vigorous campaign for pre-natal care alone, for instance, they will solve the problem. They must feel that a complete plan must be developed and the specialists must also realize that their specialties must be made to fit together into a well rounded program.

Many national organizations realize this and, during the winter, representatives of a few of them have met and informally discussed the problem. As a result, the Council for Co-ordinating Child Health Activities was formed and their brief statement of purposes appears on another page of this magazine. Each organization retains its identity. Each has an enormous field of work. Each requires special study and special methods just as different branches of medical practice are separate problems. These organizations feel, however, that the general work for the health of the children will be helped if each understands the other's work better and all try to see that there are no gaps and no overlapping of effort. The formation of the Council is an important step in the right direction.

## Catching Up With The Snail

Under the Greek and Roman emperors children were abandoned as we dispose of superfluous kittens. Sometimes such a child was picked up by a passerby and reared as a slave. After a while the rearing of abandoned children for the profession of beggary became well established, and it was considered quite proper, in order to excite pity in the beholder, that such children should be mutilated in a manner to produce a terrible deformity.

Christianity taught that the infant has a soul, and endeavored to stem the tide of cruelty among the Vandals and Goths by regulating the enslavement of the children. One measure was to give new-born children sanctuary in the cathedral porticos; another to buy children from very poor parents and rear them properly.

After about a thousand years came St. Vincent de Paul and the permanent establishment of the orphan asylum. Then Napoleon, on January 19, 1811, decreed that "foundlings, abandoned children and poor orphans" were properly wards of the state, and set aside 4,000,000 francs annually "to contribute to the monthly payment of wet nurses and the boarding of foundlings and abandoned children."

To come down to modern days, the "Bill for the Public Protection of Maternity and Infancy," known as the Shepherd-Towner Bill, was given a hearing on Wednesday, May 12, 1920, by the Committee on

Public Health and National Quarantine of the United States Senate. It was favorably reported, and is now on the Senate calendar. The Senate Committee hearing was marked by an attendance on the part of the Committee members disproportionate to the number and zeal of those who were testifying for and interested in the measure. The Chairman, Senator France, and Senator Ransdell were enthusiastic as to the merits of the bill, though clearly discouraged as to its outlook. Senator Ransdell referred to the absence of members of the Committee, when Mrs. Kelley asked, "Why does Congress wish to have mothers and babies die?"

*Senator Ransdell:* "You see how many there are here today. Our chairman has done his utmost to get them here today, and I know Senator Sheppard has done everything to get them to come. They are all very busy with a variety of things, however, and there is some little excuse. They do not realize the importance of this bill. They are so absorbed, perhaps with hogs and cattle, and the boll weevil taking their time, since the agricultural appropriation bill is now in conference. They are worried, and I expect they are getting telegrams about that very bill now. I am speaking in all seriousness."

*Mrs. Kelley:* "Oh Senator, so am I."

*Senator Ransdell:* "I am heartily with you."

*The Chariman:* Mrs. Kelley has said that this is a sorrowful occasion, and I have chronic melancholia over the possibility of getting any social legislation through the Congress. It has been impossible for decades, and it is still impossible. Nothing but a general movement forward in the direction of general welfare politics will cure the disease of congressional inaction and stupidity."

*Mrs. Keyes:* "Might I call your recollection to Napoleon's remark that if anything is possible it can be done; but if it is impossible, it must be done"?

"Had Gulliver narrated of the Lilliputians that the men vied with each other in learning how best to rear the offspring of other creatures, and were careless of learning how best to rear their own offspring, he would have paralleled any of the other absurdities he ascribed to them." It is a long time since Herbert Spencer wrote these words, but today England's social program is putting us to shame. Social progress is necessarily slow, because it means social education. The snail is a common symbol of slow progress, and human thought a simile for speed. And yet, in some excursions of the human mind, the snail's pace would not be unsatisfactory if it were only reasonably certain.

# Suggested New Laws On Illegitimacy

EMMA O. LUNDBERG

*U. S. Department of Labor, Children's Bureau*

IN conferences recently held in Chicago and New York under the auspices of the Federal Children's Bureau, in co-operation with the Inter-City Conference on Illegitimacy, judges, lawyers, probation officers, and representatives of public departments met with executives and case workers of private agencies to discuss the better protection of children born out of wedlock. Although attendance at each conference was limited to forty or fifty people who, by reason of special knowledge and experience, had been invited to attend, 22 States, the District of Columbia, and Canada were represented, the delegates coming from a total of 39 cities.

The "regional conferences" in New York and Chicago followed a period of intensive study of the subjects under consideration by local groups affiliated with the Inter-City Conference on Illegitimacy. The purpose of the conferences was to obtain full and free discussion, by those having first-hand knowledge of the problem, which should lead to a formulation of principles and a general agreement, if possible, on the standards which should govern legislation in this field. The existence in a number of states of official commissions engaged in the study and revision of child welfare legislation with a view to reporting to the next sessions of the legislatures, makes the discussions and results of the Children's Bureau conferences particularly timely.

## NEED OF FLEXIBLE METHODS

Throughout the discussions, the rights and responsibilities of the four parties at interest—the child, the mother, the father, and the State—were emphasized, with general agreement that the welfare of the child is of paramount concern. Although broad general policies were laid down, it was pointed out over and over again that flexibility of machinery and methods is essential, and that justice can be obtained only by the careful consideration and treatment of each case as an individual problem. The futility of legislation, however generous in conception and purpose, which does not provide adequate administrative organization, and the need for wise understanding, and sympathetic directors and agents of public and private bodies, were also brought out.

## EXISTING LAWS

At both conferences the opening paper, by Prof. Ernst Freund, of the University of Chicago Law

School, was a treatment of the present law regarding children born out of wedlock, and possible changes in legislation. Professor Freund, who has made a comprehensive study of the subject, pointed out the archaic condition of legislation for the support and care of children of illegitimate birth in most of the United States. However, there are well-defined tendencies of reform agitation, and laws have already been passed in several states giving the child born out of wedlock a much greater amount of protection. Professor Freund outlined the changes in legislation relating to status, support, and care, which, in his opinion, are practicable and desirable.

### THE MINNESOTA LAW

After a discussion by leaders in social work of the practical ideal of protection and care for children born out of wedlock, Mr. Hodson, of the Minnesota Children's Bureau, described the scope and purpose of the Minnesota law, and the results of two years' experience in its administration. Minnesota, through legislation passed in 1917, affords a greater amount of protection to children born out of wedlock than does any other American State. Recent legislation in other States was also discussed.

### DISCUSSION OF METHODS

The second, third and fourth sessions of the conferences were concerned with detailed discussion of methods of establishing parentage, types of procedure for establishing paternity, the responsibility of the father and the mother of the child born out of wedlock and the methods of insuring the assumption of this responsibility whenever possible, and the extent to which the State should assume supervision or guardianship over children of illegitimate birth.

### DISCUSSION OF RESOLUTIONS

At each conference a resolutions committee of five members was appointed, and the last hours of the conference were devoted to discussion of and action upon the report of the committee. After amending the reports in some particulars, the resolutions were adopted, in most instances by unanimous votes.

Although differences between the East and the West in the nature of the problem, present methods of care, and administrative experience, made it seem likely that there would be considerable difference in the principles agreed upon by the two regional conferences, there is surprising unanimity in the two sets of resolutions. With one exception, what differences there are relate to technical details which, though of importance to those actually engaged in the drafting of legislation or in methods of administration, do not affect underlying principles and policies. Hence, the resolutions of both conferences are here considered together. If one conference went further than the other in regard to a given subject, the minimum, common to both, is given in the following summary.

1. *Birth registration.* All births

should be registered, but in the case of an illegitimate birth, the name of the father should be recorded on the birth certificate only after an adjudication of paternity or on the written consent of the father. Adjudications of paternity should be reported by courts to the birth registration authorities. Records of births out of wedlock should be confidential records, open to inspection only upon order of court, and transcripts for school or work purposes should omit facts concerning parentage.

2. *Reporting to administrative agency.* All births not clearly legitimate should be reported to a properly authorized public agency.

3. *Establishment of paternity.* Proceedings to establish paternity should be initiated by the mother. If she is unwilling, and the public agency above referred to deems it advisable, in the interests of the child, proceedings should be instituted by the public agency. The law should provide for the use of either a civil or a criminal proceeding, as both have advantages; the court given jurisdiction should be one of socialized experience and equipment, and the proceedings should be as informal and private as possible.

4. *The father's responsibility for the support of the child.* The Chicago resolutions stated that "The father of a child born out of wedlock should make financial provision for the adequate care, maintenance and education of the child, having reference to the father's economic condition." The New York resolutions included the statement that "The obligations for support on the part of the father should be the same for the child born out of wedlock as for the legitimate child." Both conferences agreed that the court should have continuing jurisdiction with reference both to custody and support during the minority of the child, that the acceptance of lump-sum payments should be in the discretion of the court, but that settlements out of court in order to be valid should be approved by the court.

5. *Inheritance and name.* After an adjudication of paternity or an acknowledgment in writing by the father, the child born out of wedlock should have the same rights of inheritance as the child born in wedlock. Assumption of the name of the father after adjudication of paternity (or, according to the New York resolutions, after adjudication of paternity or acknowledgment in writing by the father) should be permissive. (The Chicago resolutions provide that the assumption of the father's name should be only after petition of the child to a court of competent jurisdiction after attaining majority, or of his guardian or next friend during minority.)

6. *Care by the mother.* The mother should be persuaded to keep her child during the nursing period at least whenever possible, but the enactment of compulsory legislation is not recommended.

7. *State supervision.* The duty of the State to protect the interests of children born out of wedlock is recognized and affirmed. With due allowance for local variance and need the conferences recommend the creation of State departments having responsibility for child welfare, whose duties shall include responsibility for assisting unmarried mothers and children born out of wedlock. The State should license and supervise private hospitals which receive unmarried mothers for confinement, and all private child-helping and child-placing agencies. Full opportunity should be afforded, however, for the development of private initiative, and there should be cordial co-operation between private agencies and the State.

8. *Legitimation.* The Chicago resolutions included no recommendation on this subject. The New York resolutions stated that subsequent marriage of the parents should legitimate the child born out of wedlock, and that offspring of a void or voidable marriage should be by law legitimate.

A joint committee representing the two regional conferences will be appointed by the Children's Bureau to formulate a single statement of principles based on the resolutions adopted by the conferences. It is hoped that this statement may serve as a guide to commissions and other organizations promoting improved child welfare legislation.

The Children's Bureau has devoted considerable time the last few years to the investigation of various phases of the problem of illegitimacy. Following the translation of the "Norwegian Laws Concerning Illegitimate Children," the collection of "Illegitimacy Laws of the United States and Certain Foreign Countries," prepared and analyzed by Prof. Ernest Freund, was published in 1919. As a general introduction to a more exhaustive study which is now in press, the report on "Illegitimacy as a Child-Welfare Problem, Part 1," was issued in 1920.

This report gives available statistics on the prevalence of illegitimacy in foreign countries and in the United States, as well as data on the high rates of mortality found among children of illegitimate birth as compared with those of legitimate birth. One chapter is devoted to the child's status and right to support and following this there is an historical summary of care given to mother and child in various countries, present methods of treatment, and the need for greater protection and supervision in order to safeguard the life of the child and secure opportunity for normal development.

In addition to copious footnotes and references throughout the text, a selected list of bibliographical material is appended. This includes source material used in the preparation of the report, and general references to current literature on the subject. A brief annotation follows each reference, to give the

reader more detailed information as to the exact nature of the material contained in the statistical data, and the references to legislation on illegitimacy, the prevailing methods of care, investigations and reports of agencies, institutions and courts.

It is hoped that these conferences and reports may stimulate greater interest in the problem of illegitimacy and prove of considerable assistance to the various states in framing legislation which shall supplant the existing archaic statutes. In place of the present inadequate protection and care augmenting the handicaps of the child, it is of increasing importance that each state should insure justice by incorporating into the laws the basic principles necessary to secure a higher standard of treatment and assure to the child born out of wedlock adequate care and support.

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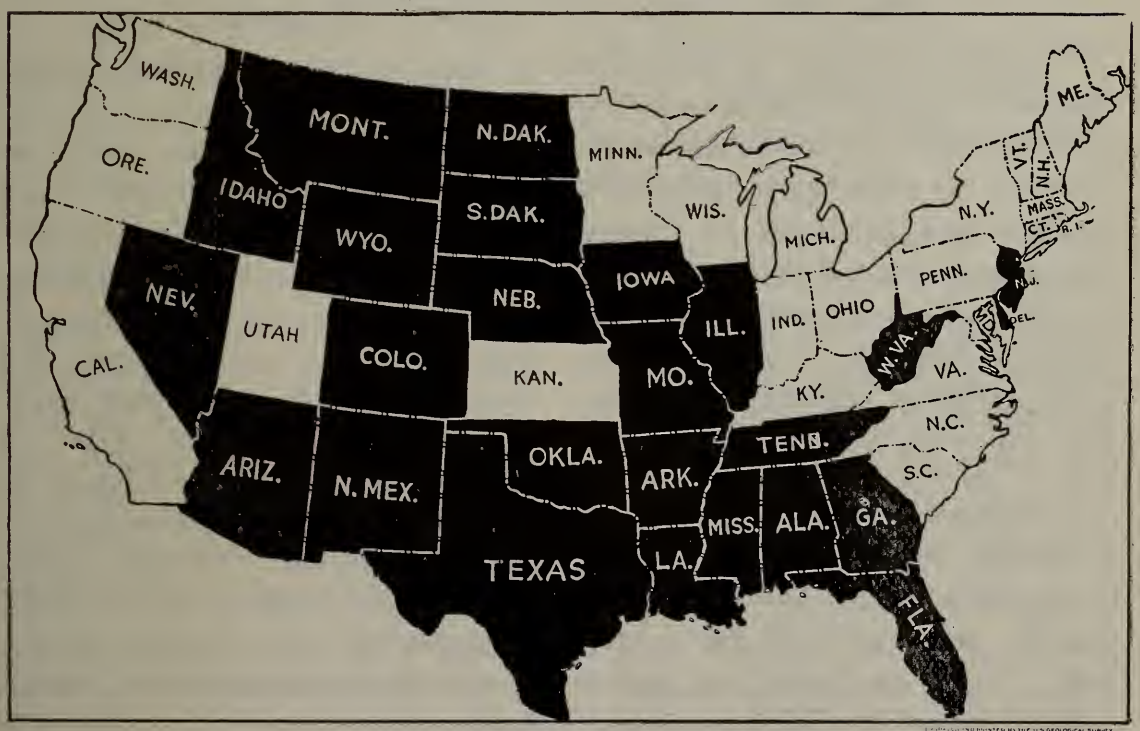
# Life and Death Records

THE birth registration area includes those states in which nine out of every ten births are recorded. Those states having fewer than this are here shown in black. They cannot learn what proportion of babies born alive live to be one year of age. Unless this proportion is known no accurate measure is possible of the dangers which threaten child life. Every citizen should know whether his or her state is one of the twenty-three in which, where the number of births is known, or one of the twenty-five in black where it is unknown.




BIRTH REGISTRATION AREA: 1920

Twenty other states have good registration laws but the citizens do not register all births.

A striking example of the worth of birth registration is shown in the comparative studies furnished by the Census Bureau.

The following cities show how many babies died under one year of age—per 1000 born alive:

A SAMPLE PAGE OF HUMAN BOOKKEEPING

| CITY | Infant Mortality Rates | | | | | Infant Mortality Rates of 1919 and 1915 compared | |
|---|---|---|---|---|---|---|---|
| | 1919 | 1918 | 1917 | 1916 | 1915 | Increase or Decrease | Per Cent Increase + or Decrease — |
| New York | 81 | 92 | 89 | 93 | 99 | — 18 | — 18.2 |
| Philadelphia | 91 | 124 | 108 | 105 | 104 | — 13 | — 12.5 |
| Cleveland | 95 | 98 | 109 | | | — 14 | — 12.8 |
| Boston | * | 115 | 99 | 105 | 103 | | |
| Baltimore | 98 | 149 | 118 | 122 | | — 24 | — 19.7 |
| Detroit | 96 | 100 | 103 | 112 | 105 | — 9 | — 8.6 |
| Pittsburgh | 114 | 139 | 120 | 115 | 110 | + 4 | + 3.6 |
| Buffalo | 110 | 121 | 104 | 114 | 108 | + 2 | + 1.9 |
| Milwaukee | 101 | 106 | 100 | | | + 1 | + 1.0 |
| Washington | 85 | 112 | 97 | 106 | 111 | — 26 | — 23.4 |
| Cincinnati | 88 | 104 | 88 | | | | |
| Minneapolis | 65 | 73 | 71 | 62 | 71 | — 6 | — 8.5 |

* Copies of birth certificates not yet received in Census Bureau.

The blanks indicate that the states in which these cities belong had not yet entered the birth registration areas.

## Why Should Births and Deaths Be Registered

"Proper registration of births and deaths is of great importance to the adult members of any community. Not only are such records necessary for the accurate study of disease and its prevention, but they are also of the utmost importance in all questions relating to heredity, legitimacy, property rights and identity. No child labor law is of value unless it rests on a system of birth registration and birth certificates by which the child and the parent can be required at any time to produce positive proof of the age of the child. Laws regulating the age of consent cannot be rigidly enforced so long as the question of the girl depends on the statements of interested persons rather than on official state records. In practically all other civilized nations proper registration of births is accepted as a matter of course. Europeans look with astonishment upon the American people, when they learn that there at present only 23 American states and the District of Columbia which have any adequate birth registration." (From a Summary of the History and Present Condition of Vital Statistic Laws, by the American Medical Association).

# What Some Affiliated Societies Are Doing

INFANT WELFARE SOCIETY OF MINNEAPOLIS

E. J. HUENEKENS, M.D.

*Medical Director*

ALL funds for public welfare during 1919 were raised by the War Chest (now called Town Tea Kettle) and distributed to the various agencies, according to the budgets submitted. While there is no question that greater harmony of interests, and more comprehensive knowledge of the larger problem has resulted from this effort at co-ordination,—as well as a great economy of effort in running one drive for the whole work, the ultimate success of this effort will depend upon an equal representation of medical and social interests, which at present is a mooted question.

### BREAST-FEEDING WORK

We have taken over the work established by the Breast Feeding Bureau of the University of Minnesota, under Doctor Sedgwick, and are doing intensive work along this line. Under the program as laid out, every new-born baby in the city is visited, facts obtained as to methods of feeding; advice and instructions given to all mothers who come within the limits of our clientele, and to all others where we can gain the co-operation of the private physician. Through these personal visits and through mailed circulars, we are emphasizing the following facts:

1st. That there is no such thing as mother's milk being "bad for the baby;" and other mixtures will disagree just as much and the child will have six times less chance of living.

2nd. That the nursing of a healthy baby increases the flow of milk until it is "getting enough," and that until such time a little breast milk with enough artificial food added to make up the proper amount (determined by weighing the baby before and after nursing) will prevent sickness.

3rd. That if there is no demand made on the breast, such as nursing or expressing the milk, the supply will disappear; that the fundamental requirement for the stimulation and continuation of the milk flow is the complete and regularly repeated evacuation of the breasts.

4th. That in a premature birth, where the baby is not strong enough to nurse, the life of the child is more often saved by feed-

ing it milk expressed from the breasts; and at the same time, by expressing, the flow of the milk is kept up until the baby can nurse naturally later when it becomes stronger.

5th. That lactation can be re-established when the baby has been off the breast for some time.

A summary of the statistics for five months in 1919 accumulated by the Breast Feeding Bureau is as follows:

Of 636 babies born in January, 1919, 549 were under observation at the end of the month; of the remaining 87, 13 babies had been artificially fed from birth; 53 had moved out of town or could not be traced; 21, mother or baby died. Of these 549 cases, at the end of the 5 months, 408 babies were still being breast-fed, and 456 were still under observation. Seventy-one mothers had been taught expression of milk from the breasts.

These same statistics are being gathered for the babies being born in each month and will be available later. With the immense bulk of work entailed by this intensive work on breast-feeding, which to be effective and at all valuable statistically, must include every baby born in Minneapolis, we are unable with our present staff of nurses to give the close follow-up work to the clinic-attending mothers which insures the best success in this work. However, we feel that the advantages of this contact with every new-born baby of the city are so great, so fundamental in laying the structure for a complete later program, that at the present it outweighs all other considerations.

### PRE-NATAL WORK

Our work is developing along broader lines, four new pre-natal centers having been opened, with the addition of another supervising nurse. For the sake of economizing nursing energy and saving the duplication of nurses in the field, we have made these clinics the training ground for the nurses of the Visiting Nurses Association, who are visiting the homes throughout the city. The program of maternal welfare, as outlined by Dr. F. L. Adair,* is being put into effect here; with the additional feature of making a start toward the co-ordination of public health nursing service. Mothers' conferences have been opened in one of our Polish settlements, the mothers meeting to sew and plan for the baby's garments and their own abdominal belts, etc.

Miss Nathalie Rudd is now the executive secretary of the organization, and the success of the newer work is due in a large measure to her work. Miss Rudd was associated with Dr. F. L. Adair and Dr. T. B. Cooley in work among

*See "Pre-natal Clinics in Paris," F. L. Adair, M.D. (Mother and Child, Vol. I, No. 1, 1920, p. 21.)

the children of France and, after her return, with the American Red Cross in Massachusetts.

### AFFILIATIONS

Our pre-natal nurse is acting as supervisor for the clinics held at the City Hospital, the pupil nurses following the cases under this supervision.

We are offering a month's experience to each student taking the University Public Health Course, including in this month an insight into infant welfare work, pre-natal work and breast-feeding work.

We are using in our work 31 volunteers, on record, dictation and office work, all of these women having taken the Extension Course for Volunteer Service, and being regularly assigned through the Volunteer Service Bureau, an outgrowth of women's war-time service.

### FUTURE AIM

At present, through lack of funds and personnel, we are unable to undertake the supervision of children between the ages of two and six years. This is being attempted now by the Women's Community Council, who are organizing classes in several settlement houses for nutrition work. This organization as well as the settlements mentioned (where we are already conducting our infant welfare clinics and pre-natal clinics) are very anxious that the older child should also come under our supervision; and this, we believe, should ultimately be included in our program.

### EXAMINATION AT CLINICS

Another feature of our work which differs from that of many others is that the physician sees every child attending clinic. In many places, it is customary for the nurse to keep for the physician only those whom she decides it is necessary for him to see—doubtless missing cases of over-nourishment and others of equal importance.

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## The St. Louis Child Welfare Work

Borden S. Veeder, M.D.

*Professor of Pediatrics, Washington University Medical School*

### HEALTH CENTERS

CHILD welfare work has increased by leaps and bounds this last year in St. Louis. For several years the Municipal Nurses Board, which is a division of the Department of Public Welfare charged with the nursing in city institutions

and municipal visiting nursing, has maintained several child welfare clinics in settlement houses, schools, etc. As this arrangment has not been satisfactory the sum of $8,000 was obtained from outside sources last summer to rent and equip independent stations under the condition that the city would increase the annual appropriation, beginning April 1, 1920, by $10,000, so that these centers might be maintained in the future. This permitted relocation of the centers according to charts of the infant births and deaths. In this way the city now maintains 7 welfare centers in buildings rented especially for this purpose. Two new buildings, now in course of construction or reconstruction for other city purposes will also house centers. In addition, the board established a conference in each of the two tuberculosis dispensaries rented by the St. Louis Tuberculosis Society. In all of these centers, the nurses and physicians are paid by the city.

Recently, the Red Cross has decided to establish three new health centers, one at the extreme north of the city, one at the extreme south, and one near the western city line in a newly developing industrial area. Each of these clinics will carry two or three nurses, infant welfare, pre-natal, and tuberculosis clinics. The child welfare work of these centers will be conducted in close affiliation with the municipal system with the use of the same records, etc., so that the end result is practically as if one organization was doing the entire work and bearing the entire expense. All of the centers, both Municipal and Red Cross, are now known as "Health Centers."

### PRE-NATAL CLINICS

In addition to these organizations, the Washington University Medical School Dispensary has a large pre-natal and infant welfare clinic, and the St. Louis Obstetrical Society maintains another large pre-natal clinic to obtain material for the students of the St. Louis University School of Medicine.

### TRAINING PUBLIC HEALTH NURSES

The greatest weakness of the present health movement in America is the shortage of trained personnel prepared to carry out the various programs which have been outlined. There is at the present time a demand for hundreds of trained public health nurses, which cannot be filled.

### THE TEACHING CENTER

In order to help meet this demand, the St. Louis Chapter of the American Red Cross has established in co-operation with the Missouri School of Social Economy a course for training public health nurses in St. Louis, which was opened the first of last September. The Red Cross has leased a large building in a selected portion of the

city suitable for teaching purposes. Infant welfare and pre-natal clinics have been established in close affiliation with the various municipal clinics. The nurses in training are assigned for field duty to the various municipal health centers for clinic work, and receive bedside instruction in the district surrounding such centers. The Red Cross has a paid staff of Directors and three Assistant Supervisors, who are specialists in infant welfare, pre-natal and bedside nursing. Arrangements have been made so that each nurse is assigned sometime during the four months' course to one of the public schools in the teaching district where she works with the school nurse on duty. In addition to the practical teaching and lectures by the staff of the teaching district, lectures on sociology case work, economics, etc., are given by the staff of the Missouri School of Social Economy. Lectures on public health nursing are given by the Superintendents of the Municipal Visiting Nurses and Visiting Nurses Associations, and a course of lectures on medical subjects is given by a group of men from the Washington University Medical School.

To the foregoing account Dr. Bolt adds the following notation:

"There are 11 physicians giving part time services to the child welfare work in the Health Centers. These physicians are paid $5.00 per clinic hour, with a maximum of $10.00 per week. Two clinics are held each week. There are 65 nurses doing visiting nursing, tuberculosis, child welfare and maternity work. The school nurses, of which there are 26, are completely under the jurisdiction of the Division of Hygiene of the Public Schools. This department of the Public Schools has a full time Chief, 13 men physicians, two of whom are colored, and two women physicians. These physicians are responsible for work in the school during school hours, but may carry on private practice outside of school hours. The school work is districted into 11 districts. There are 135 Public Schools in St. Louis. The Parochial Schools do not come under this Division of Hygiene of the Public Schools. There are three open air schools and one residential school in St. Louis."

The proposed budget for the child welfare work of the city exclusive of that for the Public Schools for the year 1920 is as follows:

| | |
|---|---|
| Seven Municipal Health Centers | $ 3,962.00 |
| Physicians | 6,240.00 |
| Nurses | 33,600.00 |
| General Expenses | 4,600.00 |
| Making a total of | $48,402.00 |
| Two New Centers of the Red Cross Training Centers | 20,000.00 |
| Visiting Nurse Association Budget | 40,000.00 |
| Making a grand total of | $108,402.00 |

## Community Health Work

John C. Gebhart

*Director, Department Social Welfare of the New York Association for Improving the Condition of the Poor.*

THE neglect of children at two of the most critical periods of their lives, the pre-natal and the pre-school period, and the apparent inability of the authorities to enlist the interest and co-operation of the parents is due in a large degree to the remoteness of most health schemes from the lives of the people affected. For this reason about two years ago the New York Association for Improving the Condition of the Poor began an experiment in an intensive health program in a congested Italian community of about 40,000 population on the east side of Manhattan. This experiment seeks to coordinate all existing facilities for the improvement of the health of mothers and their children and to supplement these facilities where they are inadequate or entirely lacking.

### Co-operation with the midwife

The work begins with educational nursing care and medical supervision of pregnant mothers. The mother is given a complete physical examination by the physician and she is visited regularly by the nurse. On these visits the mother is given simple but adequate instruction as to personal hygiene, its relation to the health of the baby about to be born and the care of the baby after its birth. Proper medical attention is provided for the mother at the time of delivery either by the attendance of a physician or a midwife.

Among this population the attendance of midwives at deliveries is almost universal. We soon recognized that it was hopeless to change this custom over-night, even if that were desirable, and that our course lay in securing the good will and co-operation of the midwife. We have impressed upon her that our work is purely educational, that it covers a longer period both before and after birth than she herself could possibly cover, and most important of all that our activity interferes in no way with her legitimate practice. The result was that instead of incurring the enmity of this important group who, through their influence with the mother, could have done incalcuable harm to our work, we have actually gained their support and co-operation.

### Entering the family door

The pre-natal work is an entering wedge into the family situation. Once the confidence and co-operation of the mother are secured through this channel, the next step is to round up the health needs of the older children. We have a highly trained pediatrician who examines as many of the apparently

well children of pre-school and school age as can be examined in two afternoon clinics. About 2,000 school children have already been examined and the most important defects set down for the guidance of the nurse in her work with the family. The defects of the nose, throat, teeth and impaired nutrition bulk the largest. In setting about to remedy these defects we were immediately confronted with the total inadequacy of facilities for their remedy or cure. With respect to teeth and defective nutrition, we have ourselves provided the machinery for their correction.

All of the children declared by the doctor to be under-nourished are referred to the nutrition workers. The older children are organized into nutrition classes, usually in the public school, where they meet once a week, are weighed and given practical instruction in food habits and hygiene. Such work would, however, be inadequate if it were not accompanied by visits of the nutrition worker to the home to give practical instruction to the mother in the preparation of the proper kinds of food and in demonstrating to her the benefits to be secured by conforming with suggestions offered. Since the under-nourished children of pre-school age are too young for class instruction, they must be supervised entirely in the home. A portable scale is carried by the worker on her visits by which it is possible to weigh such children weekly and to impress upon the mother the need of proper food, rest and fresh air to enable the child to make his proper gain. This work has accomplished most satisfactory results. A group of 116 of these children for a period of four months have made nearly twice the gain which was expected of them, while, of course, many individuals have far exceeded even this record gain.

### THE NEED FOR DENTAL ATTENTION

A careful dental survey has indicated that 97 per cent of the children of this district have defective teeth. The need for dental attention is so pressing that we determined not only to provide facilities for the care of the mouths of children examined by our physician but to make a demonstration of the kind of well-rounded dental program for school children which every community should have. Our plan calls for the prophylactic cleaning of the mouths of all of the children in the first five grades twice a year, and for fillings and extractions of the teeth of the younger children beginning first with the first grade and completing this before work is begun on the older children. We have accordingly secured a staff of dental hygienists and dentists. During the current school year about 3,000 children have received prophylactic cleaning and about 500 have had the necessary dental work done.

### HEALTH AND SOCIABILITY

We very soon realized the need of a community house which could

be identified by the neighborhood as the center for all the health activities of the district and which would serve as a headquarters for the medical, nursing, nutritional and dental staff and which would also provide what has hitherto been entirely lacking, a place for the expression of the recreational and social needs of the neighborhood. This house has recently been opened, and besides the general offices and clinics provides social rooms, library, club and class-rooms. Cooking and sewing classes for school children and working girls, citizenship classes and musical clubs are already organized and in operation. The social and health needs of the neighborhood are thus being thoroughly co-ordinated so as to make the health work what it should be, a part of the social consciousness of the community, and not a thing temporarily imposed upon it by a benevolent but detached agency.

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## Council for Co-ordinating Child Health Activities

On the 28th of June, 1920, the Red Cross Bulletin made the following announcement, under the heading, "Co-ordinating Child Health Activities":

"Organizations doing health work among children are more and more appreciating the pressing need of correlating their activities. It is felt that not only is there much duplication and, therefore, much waste of effort, but also that many opportunities for developing well-rounded programs for the health of children are thus lost.

The American Child Hygiene Association, American Red Cross, Child Health Organization of America, National Child Labor Committee and National Organization for Public Health Nursing have held several conferences with a view to ascertaining how such correlation may best be effected. As a result the representatives of the organizations have formed a Council for Co-ordinating Child Health Activities, to which will be added, gradually, other national organizations carrying on well-defined programs for the health of children. The main objects of the Coulcil are:

1. To define and develop so clearly their own work that each organization will be working in harmony and co-operation with all the others.

2. To develop new methods which will lead to meeting more effectively some of the special problems still unsolved.

3. To afford an opportunity for any organization dealing with the health of children to submit its plan and program for suggestions.

The Council will act as an advisory and co-ordinating agency."

# A Mother's Instructions to a New Nurse*

(This article from the Archives of Pediatrics, May, 1920, is so valuable that it is here reprinted, thanks to the courtesy of the Editor.)

YOU are probably finding it rather difficult to get the children to obey you at once. I am, therefore, going to write the following hints, which may help you and give you an idea of my own methods. I look upon it as vitally important that they should obey at once even in unimportant things such as "come into the garden now," because if they get into the habit of hesitating to obey one can imagine an occasion when it might mean death to one of them. For instance, if "come into the garden" is not obeyed at once, "don't step off the pavement" might equally be disobeyed with terrible results:

1. Never give a tentative order such as, "I think it is time you came in," say "come in now." Always conclude that your order will be obeyed at once until you see it is not. For instance, don't say "come in now" and at the same time walk toward the child to take its hand to lead it in, but say "come in now" and turn yourself toward the house.

2. If possible never show annoyance. For instance, repeat an order if necessary in exactly the same voice, because otherwise they will wait until you are annoyed before they will obey.

3. Never show surprise at wrong doing. For instance, "Oh! Pauline, you are not pouring water on Molly, are you?" Say, "Pauline, stop pouring water on Molly."

*In case of disobedience.* 1. I give the children 25 cents each, good conduct money, on Monday morning if their conduct has been perfect for the preceding week. I keep in a book the number of marks, each 1 cent, taken off for little things, such as dawdling when told to do something, touching things that don't belong to them when they know they shouldn't, saying "why," not to gain information but to delay obeying, etc. You can also take off marks and let me know every evening whether you have taken any off or not, so that I can enter them into the book.

To give an instance, if you should say "come into the garden now" and they should not have obeyed by the length of time it takes to count about ten, just say, in a quiet tone of voice, "one mark off"; then repeat your order, using the same words and voice as before. If disobeyed the second time say "four marks off," and if disobeyed a third time say, "no cake for tea," or "stand in the cor-

*These simple hints to a nurse, devised by a young English woman, have appealed to the Editor as well worth being printed. They are modeled on military standing orders and are designed for the benefit of a woman who had never been a nurse before.

ner for five minutes," whichever is the most convenient at the time.

2. You must always win no matter what uproar it creates, but never under any circumstances slap or have recourse to corporal punishment. (I feel that it is quite unnecessary to say this to you, but I am putting it down with the rest.)

3. The "no cake" or "corner" may lead to a bad outbreak of temper. The best thing to do then is to put the child to bed and leave her there till she is quiet. This has only had to happen very rarely.

4. Always be firm and get your own way wherever you are and whoever is there. Giving way to a child to save a scene in the street or on the stairs only lays up trouble for a future occasion. Children can see so quickly whom they can get the better of, and they are in the long run happier with, and fonder of, the people who can control them. Pauline and Molly never bear resentment for just punishment.

5. Never give an unnecessary order. Remember, it is more important that they should be jolly and happy than that they should have clean clothes and perfect manners. The object of all the foregoing notes is in order to cut down "don'ts" and "mustn'ts" to the minimum. I think that their very exuberant spirits have been greatly helped by this system.

*General Notes.* 1. The children have no idea about being frightened in the dark because it has never been suggested to them, directly or indirectly, that there is anything in the dark to be frightened of. For instance, they have never been asked if they were frightened or praised for not being frightened. Never say, "it's all right, I am in the next room."

2. They have no fear of anything supernatural, as they have never been told stories about spooks, bogies and ghosts, which terrify children so. When I tell them fairy stories I always say they aren't really true but just imagination stories, such as Father Christmas. Never tell them an untruth such as "the policeman will come and fetch you," or "angels bring babies."

3. Never say when they are naughty "I'll tell your mother." They ought to realize that I will be told as a matter of course. It is apt to make children deceitful.

4. Before stepping off the curb into the street, or stepping on to a carriage way in the park, or when a motor vehicle comes in sight on a country road, I make Pauline hold my arm and I hold Molly's hand. You should do the same. On the pavement make them walk beside you, do not let them straggle all over the pavement. Never take them under any roof without my knowledge. No one else must be in charge of them for one moment without my permission, except their father, you or me.

5. Do not think it necessary to amuse them the whole time. They

are accustomed to amuse themselves. This is a good thing for them. By this I do not mean you should not play with them when you feel so inclined.

6 Strangers take a great deal of notice of them and I am anxious that they should not grow up thinking themselves of more importance than any other member of the general public.

*General Health Notes.* I must be told everything, however trivial it is, about their health, conduct or funny remarks. When you notice a symptom of ill health, however small, let me know at once, whether it is in the middle of the night or whether I am at a dinner party. When you cannot speak to me or telephone to me put the child to bed, send me a telegram and send for the doctor. Money, where health is concerned, is no object. This also applies to yours. If your suspicions prove to be unfounded, it would only give me more confidence in you. If they complain of any pain always conclude they really have one until both you and I agree that they have not.

Both children must go to the W. C. every morning after breakfast regardless of whether they want to or not. If a whole day goes by without the bowels moving inform me and give an aperient. You need not inform me by telegram if they miss one day, but you should if they miss two. They should be made to go to the W. C. to make water whether they want to or not at the following hours: first thing in the morning, before luncheon, when they come in in the afternoon, and at bed time.

All wet clothes, especially wet shoes and socks (this includes faintly damp) should be changed at once on coming into the house, and if they are damp they should not sit down out of doors. They should never sit on anything damp or on cold stones. It is no good asking them if they are cold or hot. You can really only tell by feeling them or the look of them. At home we always have an outside thermometer and you should get into the habit of consulting this when deciding what out-door clothes they should wear.

They must never eat anything, including chocolates or sweets, between meals. They know that they must tell people who offer them anything to eat that "mother doesn't let me."

They must never use a glass, etc., used by somebody else before it has been washed.

You may have to limit the amount they eat of any particular thing. Give them small helpings so that they do not get into the habit of wasting food by leaving it on their plates. Let them drink as much water as they like at any time.

Unless their father or I am present you are completely responsible to me for them without any exception, and I will always back you up.

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# MOTHER AND CHILD

## A MAGAZINE CONCERNED WITH THEIR HEALTH

Volume 1 Number 3


OCTOBER 1920

PUBLISHED BY
THE AMERICAN CHILD HYGIENE ASSOCIATION
BALTIMORE

# MOTHER AND CHILD

## A Magazine Concerned With Their Health

Published Every Other Month by
The American Child Hygiene Association
1211 Cathedral Street, Baltimore, Maryland

VOL. I OCTOBER, 1920 No. 3

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Acceptance for mailing at the special rate of postage provided for in Section 1103 of the Act of October 3, 1917, authorized August 5, 1920.

## Child Hygiene Work Is Educational Work

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The American Child Hygiene Association is organized to assist all public and private agencies doing, or intending to do, this work, and to educate the public to the necessity for its nation-wide extension through federal, state and municipal channels.

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# MOTHER AND CHILD

A Magazine Concerned With Their Health

VOL. I OCTOBER, 1920 No. 3

## The Children of Central Europe

### SOME ASPECTS OF THEIR NEED IN CHILD WELFARE WORK

JULIA C. LATHROP

*Chief, Children's Bureau, U. S. Department of Labor*

THE three great classes of children in Central Europe who need help are first, of course, under-fed children, then homeless children and untaught children. Some children combine in themselves the miseries of the three classes.

It has been suggested that the readers of MOTHER AND CHILD might be interested in a few somewhat superficial and wholly untechnical observations from the note book of a recent journey. I offer them with hesitation, because I can no longer tell what is a truism and what is not commonly known.

This spring I spent three months in Central Europe—about six weeks in Czecho-Slovakia and much of that time in Prague—a city whose beauty and historic interest are so great that if one could forget the troubles of the war anywhere in Central Europe, it would be in that exquisite spot. But the long bread lines, the fifty thousand children of the town fed daily in schools and institutions and in canteens, the food prices in the shops, were constant reminders of the slow, unsparing enemy, hunger.

#### UNDER-FED CHILDREN

We are familiar in general with the work of the European Children's Fund, a fund which Europe, notwithstanding all protestations, continues very properly to call the Hoover Fund. We know that in the current year in seventeen European countries the fund has fed one supplemental meal daily, of 600 to 700 calories of food value, to about 3,000,000 children, all these children examined by physicians and selected as the most seriously under-nourished.

Of course, the majority of European children are still approximately well-nourished, otherwise the situation would be hopeless; but in no country can all the under-nourished children be fed. The American Friends Mission in charge of the European Children's Fund operations in Germany divides the 15,000,000 children of Germany un-

der 14 years of age in four classes:

1. Normally nourished;
2. Under-nourished;
3. Badly under-nourished;
4. Dangerously under-nourished.

It places 30 per cent of the whole number, or four and one-half millions, in classes 2, 3 and 4, and places one million in classes 3 and 4 as badly and dangerously under-nourished. Probably no Central European country would show a more favorable proportion, while Poland, Austria and parts of Jugo-Slavia and other states may well show a much worse condition. In Poland the fund was feeding, in May last, one million, three hundred thousand, in Czecho-Slovakia, three hundred thousand, or about 10 per cent of the estimated child population under fourteen. The response to the supplemental feeding has been so favorable that successive medical examinations have justified the fund in reducing the numbers fed so as to make the supply of food serve as long as possible for the most urgent cases.

But no one is able to prophesy the ultimate effect of under-feeding a generation of children for six years or more, even if the food supply is to be adequate from this time on.

It seems already plain that watchful care for children leaving school at fourteen and beginning work is likely to prove quite as necessary as for the younger ones, if we are to preserve the gains made by the extra feeding, or if we are to fend off tuberculosis and other diseases which are invited by weakened resistance. Scientific, continuous study of the physical needs of the children who are reaching the early teens after living through the war privations is greatly needed, and provision for such work would be a world benefaction.

The under-fed children are known sufficiently well so that we may hope the worst immediate suffering is relieved, although the degrees of under-feeding are well enough measured to show that only the most pronounced cases have been reached by the joint efforts of this country and Europe.

We give out of abundance and we cannot too much respect the unselfish activities for Central Europe of countries which have themselves endured great losses as belligerents, or great hardships as neutrals. France, England, Italy, Switzerland, Sweden, Norway, Holland are all working for children in Vienna, taking them away for vacations to feed them and to give a change of atmosphere from the depression of that mournful city. Added to these are the efforts of the Central European countries themselves, all of which are straining heroically to care for their own. All the aid given would not go far otherwise.

The evidences of under-feeding are not always obvious to the lay eye. One becomes accustomed unconsciously to a lowered standard,

but there are some signs anyone can understand, once attention is called to them.

"Look at their legs," said a friend with whom I was walking in a decent quarter of a great city, pointing to a comfortable-looking group of young school children. There was a betrayal. Some legs were bowed and some knock-kneed.

Crooked legs betraying rickets

Doubtless some were straight, but they only served to emphasize the deviations. The children in the picture are from another country, but the legs are like those I saw.

But under-feeding will cease. Food will be more plentiful. This harvest in countries where peace allows even partial tillage is good and early. If confidence could be established tomorrow between the countries of Central Europe and peaceful interchange of commodities secured with Russia, Central Europe would not merely take care of herself; she would soon begin to show the world important advances in child welfare methods and in the whole social field. A brilliant Pole interested in every phase of child welfare said with a melancholy smile, "Poland can show samples of every good thing." Poland only needs time and peace. Just now Central Europe is eager to learn from us. Czecho-Slovakia has accepted an invitation to send five students to Vassar next year. The Rockefeller Foundation has students from Czecho-Slovakia in the School of Hygiene and Public Health of Johns Hopkins Univer-

sity, and Polish girls of fine ability are eager to come here to study child welfare and public health nursing. None can come at the present prohibitive rates of exchange unless money is furnished here, as is done by the Rockefeller Foundation and Vassar College. "I wish above everything to come, but I cannot, because all I have would not pay my expenses while in the United States, though here it will always support me." This was said by a young woman of great power for usefulness, whose work for children had proved her ability and who ardently wishes to study child welfare methods here in order to serve Poland.

### HOMELESS CHILDREN

It is not easy to believe here that there can be hordes of homeless children wandering from door to door or town to town in the former war areas, but the knowledge cannot be escaped over there.

Because of responsible information sent to Dr. Alice Masaryk, president of the Czecho-Slovakia Red Cross, from Ruthenia, the eastern-most state of Czecho-Slovakia, she asked Miss Fanneal Harrison, director of the American Junior Red Cross in Czecho-Slovakia, to go to Ruthenia and investigate carefully the report that a thousand or more homeless children were there wandering about in search of food and shelter. We were fortunate enough to be allowed to join the party.

At first such a statement sounds beyond belief, and yet a little reflection shows how easily it may be true that there are great numbers of children for whom nobody is responsible. Fathers have been killed in the war, remote villages have been invaded and depopulated, families have been separated, typhus and other diseases have killed many, everybody is poverty stricken. The new governmental machinery for child protection is not in operation, and the old private children's charities are powerless to meet the vast requirements created by the war. At Ushurod, the prnicipal town of Ruthenia, the kindly, sensible superintendent of the State School for the Deaf said that one child or more came in almost every day at dinner time for a meal, and then wandered on. Sometimes one or two stayed, but the school itself had scant reserves of food and she dared not take in all wanderers who came. It soon became clear that the report based on an estimate made by the teachers of the region was doubtless a sound working hypothesis.

### INADEQUATE PROTECTION

No country knows how many dependent children, or how many homeless children it has. Some of the children who have lost their natural home protection because of conditions created by the war are doubtless in kindly hands; others not. Many are living with people who are allowing them shelter, good or bad, without pay. They

ought all to be under the careful supervision of the state so that they shall be protected from exploitation and fairly paid for when fairly cared for.

If there could be children more pitiable and more truly homeless than the wanderers, they are children who are irresponsibly boarded-out at a rate perhaps adequate before the war, but which now, at the present cost of food, is trivial. For example, a foundling asylum in Ruthenia had been placing out children for years. It was having a hard struggle to keep alive the young children and babies in the asylum,—a recent epidemic had killed many and those who were left were in a very poor state. Obviously it could not maintain a staff of wise placing-out agents to visit its seventeen hundred placed-out children, and even supervision would avail nothing without money to pay properly for the children. When we visited the asylum we saw two or three women sitting by the gate with papers in their hands. "These women," we were told, "come and sit here every day. They are women who are boarding children. They get 50 kronen a month, now raised to 60, but they say it is not enough." This sum would be in American money about one dollar, at the present rate of exchange, though at the pre-war value of the kronen, fifty kronen, or $12.50, would have been about the pre-war scale in the United States. Naturally the children must be under-fed and wretched, and it may well be that the wanderers are recruited from the children who are "boarded" only in name.

Later we saw some of the children who were boarded-out in a gypsy settlement nearby. I have never seen human beings with so little clothing in cold weather. All were barefooted, none had headgear, and the thin, tattered garments showed the flesh. One child, a boy of perhaps eight or ten years, wore absolutely nothing but a pair of flapping cotton drawers tied about his waist with a string. It is cheering to be able to state that the Czecho-Slovak Red Cross had already sent Boy Scouts with emergency help to this region; that the European Children's Fund already was arranging feeding stations for twenty-two thousand; and that the American Junior Red Cross, upon reporting the situation to the Paris office of the American Red Cross, was informed that twenty-seven carloads of clothing and material would be sent at once, to be made ready for the coming winter.

Later I saw in Poland evidence of the same homelessness, in the case of boys who had been driven out of evacuated towns and had become, naturally enough, "little brigands" as they were described by a member of the committee which had rescued them.

Reports from the remoter parts of Jugo-Slavia describe the same lonely child wanderers.

To establish systems of home care for these children is a matter of great practical difficulty. One

reason is that boarding out requires faithful local supervision, careful records, and responsible and coordinated administration. Naturally a new country which must develop a new government, has many other cares, but before the question of caring for the children deprived of homes by the war is finally solved in Europe it seems to be quite certain that in addition to institutions, the plan of family-care will be frankly recognized. It will come about in spite of the fact that this "invisible institution" is alarming, at first thought, to many, and especially so to persons who are accustomed to caring for children on the old asylum plan.

Bohemia, through a well-established and competent society, shows excellent examples of boarding-out, or colony care as it is usually called, and it is to be hoped that the method will be widely developed in Czecho-Slovakia. No country is better equipped for doing the highest type of child welfare work. Sufficient institutions for all the children whose family ties have been broken down do not exist, of course. But the children will be grown before it would be possible to build and equip institutions in sufficient numbers to take care of them. I do not wish to be misunderstood, there is need for many institutions in every country to care for defective and delinquent children who, inevitably, have been neglected during the war. Institutions for anemic and tuberculous children are needed in large numbers, and at once. Hence, even if institution care were best for normal children, they could hardly claim it against others who cannot live in homes.

Unquestionably asylums are needed for the present emergency in countries which have been swept by invasion after invasion, and it has been necessary to provide for the children who came in vast numbers from evacuated towns.

The sufferings of Polish children are beyond imagination. One Polish committee alone was caring for two hundred thousand children, and this great number was known to be only a fraction of those in need of help. Many American associations were giving valuable assistance, but the needs are immeasurable.

In the environs of Warsaw I saw two admirable institutions for war orphans and waifs. In each case a series of houses in an industrial suburb had been taken, cleared out, and refitted simply in a sanitary manner for the care of the children.

One institution sheltered very young children and babies. It was favorably placed by a prehistoric river bed where sand dunes bordered by pine forests gave delightful and wholesome outdoor life to the depleted children, who needed every aid to regain normal vigor. The other institution for about one thousand children (boys and girls) was scattered along the village street, one house serving as a cook house, one as a school, and others were used for dwelling places. This physical scattering seemed to be

accompanied by a wisely directed freedom. There was as much self-government as possible, and the ingenious efforts to stimulate the children to self-control and to interest them in practical activities were very admirable. Many of the children were still ill and bore the marks of hardship. Some had come down from Vilna or had been driven out of captured areas. We watched them wheeling smoothly into their places, clean and orderly.

It may not be amiss to point a moral here and say that it is certainly not strange that family care or boarding-out seems difficult abroad when one realizes the pride and confidence in institutions which still persist in this country, though methods of administering the boarding-out system have already been for years in successful operation.

It is perhaps because a prophet does not lack honor save in his own country that we at home know so little about such interesting and successful demonstrations of home care as the Speedwell Society plant of Doctor Chapin's, for instance; or the work of the Infant Feeding Clinic under the auspices of the Associated Charities and the Baby Hygiene Committee of the Collegiate Alumnae of San Francisco; or the boarding-out in Massachusetts, Pennsylvania, and elsewhere.

Children having sun baths on the sand dunes

Yet it is the results achieved by these activities that have been considered worthy of a journey across the world to examine.

I have said nothing of young babies, chiefly because, as is well known, they have on the whole flourished during the war, thanks to maternal nursing and the special care for mothers provided so far as possible in each country.

The methods by which children shall be kept alive and protected throughout childhood now need equal attention, and will receive it. I know of no country in which brilliant national child welfare work is not under way, with full understanding of the situation to be met. Perhaps we have given no greater help than by the trained public health nurses who have gone from the United States and have shown in themselves convincing examples of the public value and the personal dignity of nursing as a profession.

### UNTAUGHT CHILDREN

Of course I am not qualified to venture a discussion of the educational needs of Central Europe, but certain conditions are plain to any observer. One of the most urgent and most costly tasks before the new democracies and one whose necessity is clearly recognized is the establishment of free non-sectarian public schools. The confusion of the war has greatly increased illiteracy rates, far too high under the old governments but dangerous and intolerable in the new nations.

Jugo-Slavia is deeply concerned because her schools have been suspended since she was compelled to enter the Balkan war in 1912, so that eight years, exactly the maximum school life required as yet in most of the advanced countries, have been lost. It is certain that as soon as she dare disband her army and devote her great intelligence and vigor to constructive work, she will bend every energy to rescue the young generation of illiterates who are perhaps the bitterest fruit the war has forced her to gather.

Poland was for 150 years divided into three parts and placed under Germany, Austria and Russia. Her language was forbidden and the schools were taught in the language of her conquerors. Now she is whole again, a free republic. She must now create a unified national life of which unified national schools, using the restored Polish tongue, are the foundation stone. Text books in Polish must be written and printed, teachers must be trained. "We need twenty-six thousand new teachers at once" was an authoritative statement. Many new school houses must be built and equipped.

Bohemia, the largest department of Czecho-Slovakia, had before the war wrested from Austria the right to schools taught in the Czech language, which is now the language of the Republic, while Slovakia and Ruthenia under Hungary were compelled by the law of 1905 to

have their schools taught in Hungarian.

Before the war its ardor for education had already given Bohemia perhaps the lowest illiteracy rate of any country, and her schools go forward, setting a lofty standard for the rest of the nation. But to reach this standard costly reorganization will be necessary in Slovakia and Ruthenia, where the illiteracy rate is heavy.

I trust these comments suggest in some degree the laborious and costly efforts which must be made for children in the new democracies of Central Europe. I wish they might convey any realization of the social wisdom, the patriotic ardor for giving the young a fair chance, which are shown in groups of people in every nation. War and poverty still paralyze the most necessary activities.

Let us hope that the great works of construction may soon be made possible by the attainment of a true and just peace.

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# The New-Born Infant

J. W. Ballantyne, M.D., F.R.C.P.E.

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THE new-born infant lies, so to say, on the great divide between two lives, the ante-natal and the post-natal, exhausted and sometimes also a little injured by his transit from the one to the other. He has existed already for nine months in the wonderfully safe and perfectly adapted environment which Nature has provided for him in the womb, and he is now face to face with the wholly new and danger-laden surroundings which are his after birth and to which he must condition himself if he is to survive. Further, he has just passed through a period of stress, lasting some hours or it may even be a day or two, which has tried him sharply; to him it has been the time of his birth and to his mother that of her labor, or, to use the old and expressive word, travail.

Perhaps the contrast between the two lives whose junction forms the location of the new-born infant has been too sharply drawn. It is rather more correct to say that whilst it is generally speaking accurate enough to regard ante-natal life as safe and immediately post-natal life as dangerous, yet the life before birth is not altogether free from risk and existence after it is not a continuous record of hair-breadth escapes. Birth itself, also, is often more than a time of stress; it may be truly the portals of death. Yet the contrast is worth remembering: life before birth is made

comparatively safe by Nature and calls for no personal exertion on the part of the unborn infant; life after birth has to be preserved by the efforts of mother and nurse and later by the child's own activities for it is full of menaces. A paradoxical philosopher (Samuel Butler) spoke wisely after all when he said "birth is commonly considered as the point at which we begin to live; more truly it is the point at which we leave off knowing how to live."

## NEO-NATAL LIFE

Neo-natal life or the four weeks' existence of the neonate or new-born infant is, as has been said, the divide between two very different kinds of vitality, the foetal and the infantile, the ante-natal and the post-natal. It is a time in life of the highest importance and it is so for several reasons of which it will be sufficient to name three: the greatest mortality occurs during its progress, so far at any rate as is known, for the deaths during the early weeks of ante-natal life immediately following on conception cannot be reckoned; the nature of its diseases and their pathology are not understood fully even by the specialist and hardly at all by the general practitioner; and treatment, both preventive and curative, have been until recent years most unsatisfactory. Here, in neo-natal life, two specialties, obstetrics and pediatrics, meet; they meet but they are not linked up. Many a new-born infant has been allowed to fall, so to say, between the hands of the obstetrician and those of the pediatrician.

Whilst it is usually wise in medicine to get to special cases and to study details, it is occasionally profitable to look closely at general principles and this is particularly true of neo-natal life and its diseases and disasters. In necessarily short space the attempt will now be made to state the conditions which determine the high rate of mortality in the new-born infant, the peculiarities of his pathology and diseases, and the causes of the hitherto unsatisfactory character of the treatment which he has received when attacked by illness. It may be possible, as the outcome of the mere statement of the conditions, to foreshadow a more effective hygiene for the neonate of the future.

## EMERGENCE OF PAST EXPERIENCES

It must never be forgotten, in the first place, that the new-born infant brings with him into post-natal life the results of past experiences, physiological and pathological. In him is the meeting place of ancestral, parental, and ante-natal vitalities and morbidities; to these currents are now added those produced by birth and early post-natal life and disease. To change the metaphor, we find in the new-born infant traces of the strata in which his past existance has been arranged, and it is almost permissible to speak of some of his morbid states as fossils drawn from and illustrating the nature of the earlier time in which they were laid down.

Other pathological conditions are so to say, recent, like the modern fauna and flora of the earth. He is a composite organism.

### THE ANCESTRAL DOCKET

There are some diseases which may affect the neonate and may even cause his death which are ancestral in origin. They come from far back in his history, reaching him through the germ cells of his forefathers and mothers. Of course there are crowds of peculiarities of this hereditary kind which are not actually morbid that arrive in his life, giving it the individuality which distinguishes it from other lives and forming what one may term the ancestral docket; but it is with the maladies that we have here particularly to do. They are not nearly so numerous as was thought say twenty years ago. Formerly all that was ante-natal in time was in a loose fashion regarded as hereditary in nature; morbid heredity was a large field. Now it is known that many maladies regarded in the past as hereditary are really microbic in origin, such as syphilis and tuberculosis. There are, however, one or two diseases left which in the meantime at least must be regarded as ancestral; and as it happens, one of them, haemophilia, is very fatal to the new-born in the form of bleeding from the stump of the umbilical cord (omphalorrhagia neonatorum). It may yet turn out that this haemorrhagic diathesis, as it is called, is not always ancestral or truly hereditary: it may prove to be due sometimes at least to septic infection of the cord stump; but in the meantime it must be accepted as occasionally a legacy (of a disastrous kind) from a past generation. To prevent its occurrence, therefore, one should have to prevent individuals with this hereditary weakness from propagating, unless indeed we discover anything strong enough to counteract a hereditary tendency. Eugenics of the positive sort is recommended in such cases; but as time goes on and more and more hereditary diseases are shown to be organismal, the eugenics propaganda will be more and more limited in scope.

### THE PARENTAL LEGACY

Other diseases which attack and which may prove fatal to the new-born infant are parental in origin; they exist in the mother or in the father before the conception of the child and they produce in the last-named either similar or dissimilar morbid changes. In this connection one thinks at once of syphilis and alcoholism, and one may add to them certain toxicological conditions such as lead poisoning. They may, of course, effectually prevent the new organism in the womb ever becoming a new-born infant at all by killing it in the early or in the later months of ante-natal life and thus they increase the number of abortions and still-births; but they, in other instances, damage the vitality of the child by sending it into the world prematurely the subject of what is

called "congenital" syphilis or syphilis neonatorum, a malady which assumes many forms and is always dangerous to life. The exact changes produced in the newborn infant by parental alcoholism are less clearly known, but prematurity of birth is an undoubted result and that in itself is serious enough, especially in combination with other morbid states. For such parental causes of neo-natal disasters the obvious remedy is effective prevention of syphilis and alcoholism in intending parents; and, as a step towards this end, the demand for a prematrimonial clean sheet of health founded upon a careful medical examination (negative Wassermann, etc.) should be encouraged as between those about to marry.

### MATERNAL HEALTH

Disease of the mother arising during her pregnancy is another cause of neo-natal maladies, deformities, or debilities. Many of these lead to prematurity of birth, always a fertile source of death in the early weeks of life, acting in various ways of which one is undoubtedly an increased liability to microbic assaults. Space does not allow even an enumeration of the diseases in the mother which may thus prejudicially affect her unborn infant and cause its neo-natal decease; but it is certain that almost any morbid state from which she suffers may react injuriously upon her child. In this way it is more than likely that malformations arise handicapping the neonate by sending it forth with, say, a cleft palate and a hare-lip; thus too are caused such maladies as variola neonatorum, varicella neonatorum, foetal pneumonia, and, of course, syphilis neonatorum. It is a peculiarity of these ante-natal diseases that they may be not at all dangerous to the infant whilst still in utero and yet be lethal after birth in the neo-natal state. The explanation is found in the special physiology of ante-natal life, which, so long as the placenta is healthy, allows even a grossly malformed or seriously diseased infant to remain in life. At birth everything is altered and the morbidity and mortality which before were potential become real. This is one great cause of the striking mortality of the neo-natal period. Obviously, neo-natal maladies due to diseases of the mother in her pregnancy must be prevented by medical supervision during pregnancy; every effort must be made to exclude disease, especially transmissible disease, from the expectant mother's body. In addition to all the ordinary precautions, such special means as the vaccination of pregnant women against smallpox and their inoculation against typhoid, etc., during the prevalence of epidemics of these disorders should be recommended. On the other hand there is no need to terminate the pregnancy, for most ante-natal maladies are, so to say, well treated by Nature herself in the womb. Nothing for instance, could be more

suitable than the intra-uterine environment for the cure of foetal smallpox, speedy and without serious scars. The real danger usually arises with the assumption of post-natal life with its new demands upon hitherto partially or wholly quiescent organs.

### BIRTH TRAUMATISM

Another large group of neo-natal morbid states find their origin in the stress-period called birth. Some of them are due to injuries and others to infections; but they are all intra-natal in their time of production, although sometimes the effects may be delayed in their appearance for hours or days. Among them are the blood tumours on the head (cephalhaematoma neonatorum), facial paralysis, fractures, dislocations, haemorrhages into various organs, including the brain, the liver, and suprarenal capsules, as results of traumatism either due to instrumental or manual interference or to small size of the mother's pelvis or large size of the child; and, as examples of intra-natal infections, one may name ophthalmia neonatorum, septic pneumonia, mastitis neonatorum, etc. Some of these are directly fatal to neo-natal life, whilst others predispose to other maladies which may prove dangerous. In every case the outlook is worse if the birth has taken place prematurely; haemorrhages and infections are more serious when occurring in or affecting the immature tissues of the infant that has been born before its time. The great general principle in the prevention and treatment of this large group of morbid neo-natal states is faultless aseptic midwifery, a consummation towards which at the present time events are steadily if somewhat slowly moving. According to this enlightened obstetric system each pregnancy with its ensuing labor is regarded as a campaign in child production to be carefully prepared for and brilliantly carried through. The details are beyond the scope of this brief sketch.

### NEO-NATAL RISKS

Finally, there are the morbid neo-natal states which arise soon after birth as a result of the impact upon the young organism (the baby) of new environmental factors. Thus the processes by which the cord separates from the abdomen may be attended by infection and the microbes may ascend by the umbilical vein to the liver or descend by the umbilical arteries to the tissues of the lower part of the abdominal wall or pelvis. In this way jaundice (icterus neonatorum), erysipelas neonatorum, tetanus neonatorum, and various forms of sepsis neonatorum may develop. Again, without any recognizable microbic infection to account for it, the delicate readjustment of functions which naturally follows arrival in a novel environment may fail to take place in whole or in part. In this way such conditions as so-called congenital debility and marasmus are set up

and such special failures in readjustment as atelectasis (want of expansion) of the lungs, sclerema neonatorum (from want of heat production), oedema neonatorum (from disturbance of circulation), and melaena neonatorum, come into being with dire effects. The general principle governing all our efforts to combat these strictly neonatal diseases is the setting up of an intensive study of the anatomy, physiology, pathology, bacteriology, and hygiene of neo-natal life by competent research workers all over the world. In the meantime good can be done by linking together more closely the obstetrician who brings the child into the world with the pediatrician who carries him safely through his infancy; there should be no dangerous *hiatus* of lessened care between the birth of the baby and the commencement of his infancy, in other words the neo-natal period must be as carefully and as continuously supervised as any other time in life. The day after birth is a dangerous time for the neonate; so is the day after his mother leaves the maternity hospital or the day when the family doctor ceases his puerperal care. There should be no such danger-days.

### CONCLUSIONS AND EXORTATIONS

As has already been stated this article gives only general principles of causation of disease and of plans of prevention and treatment in the interesting and critical neonatal time of life. Details must be supplied in order to complete the picture, and it has to be confessed that some of them are not yet available; but none of them is unattainable. Further, no nation which desires to keep her place in the world can afford to let her new-born infants perish or come into life deformed, disabled, or delicate; consequently it is a matter of national policy as well as of humanitarian urgency to study neo-natal pathology and practice neo-natal prevention and cure.

The problems, as has been shown, are complex. The neonate is the meeting place of many possible morbid tendencies which may be ancestral, parental, maternal, or strictly infantile and neo-natal in origin; for their prevention or defeat it is necessary to call to his aid eugenics, the prenuptial medical examination and health certificate, the supervision and (if necessary) treatment of all expectant mothers; the readjustment of obstetric theory and practice so as to make labor as safe for child as for mother, and the specialization of the study and care of neo-natal life until as much is known about its characters and dangers as is known about, say, the twenty-first year of life. With a full realization of the tremendous issues involved these large requirements cannot be regarded as excessive or beyond the reach of any self-respecting nation. *Sic itur* (*per aspera*) *ad astra.*

# Preventing Decay in Children's Teeth

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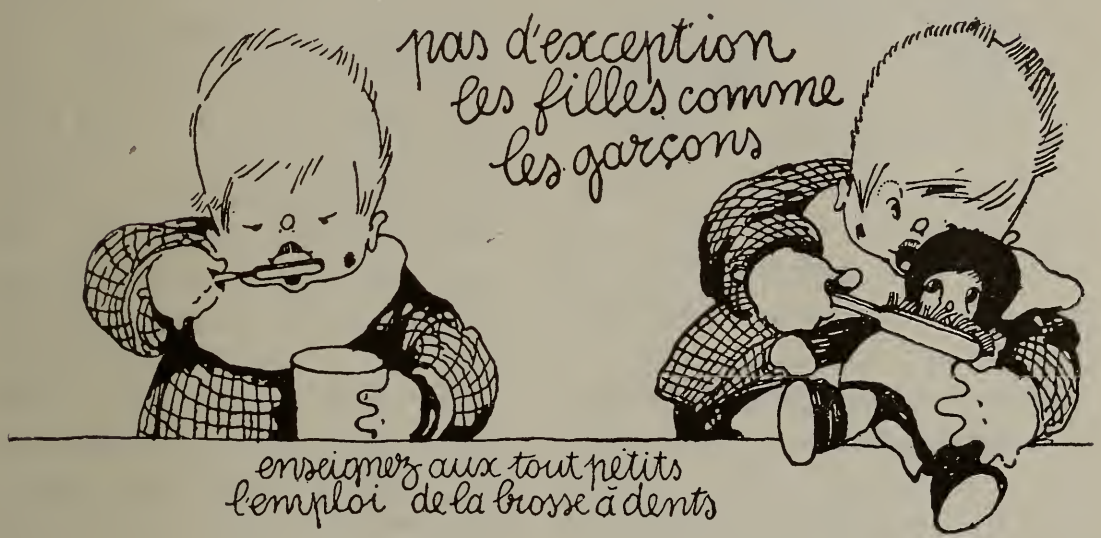
*The illustrations in this article are from a booklet distributed in France by the Children's Bureau of the American Red Cross.*




CHILDREN'S teeth have received but scant attention until quite recently. Just because the first set of teeth is temporary they were neglected by the parents, ignored by the dentist, and overlooked by the doctor. It was commonly supposed that decayed teeth were hereditary, and that the children of parents who had bad teeth were destined to the same affliction. Another common error was that a decayed tooth is the result of uncleanliness and that the chief factor in its prevention is the toothbrush. This has led to the popularization of oral hygiene, toothbrush drills, etc., which undoubtedly was a step in advance, but did not reach the source of the trouble.

A decayed tooth is a diseased tooth and is very largely caused by improper and deficient diet. By deficient diet is meant foods which do not contain enough lime or require enough mastication. Lime is an essential ingredient in the production of bone and teeth, and a tooth with insufficient lime is very apt to fall a victim of dental decay.

Mastication stimulates the flow of saliva which cleanses the teeth, and the friction of the food scours and polishes them, while the action of the jaw muscles brings a larger supply of blood to the teeth.

The teeth of our Simian ancestors and of primitive man were strengthened and polished by cracking nuts and chewing fibrous roots.

The temporary teeth commence to form in the fifteenth week of

foetal life so that the diet of the pregnant mother assumes special importance in this connection. Some dental authorities contend that the condition and structure of the first set of teeth depend entirely on the diet of the mother before the baby is born and during the lactation period. Therefore the mother should give thoughtful attention to her diet during pregnancy and lactation and see that it contains natural foods such as milk, meat, vegetables, fruit, and cereals, which contain sufficient lime and phosphate for bone and tooth formation.

Many mothers do not realize that breast feeding is an important factor in producing strong, healthy teeth. The testimony of dentists will show that it is very unusual to find healthy teeth in children who have been artificially fed, especially on prepared infant foods.

### PRE-SCHOOL AGE NEGLECT

Dr. Sim Wallace, an English dentist, over twenty years ago contended that children with good teeth had good teeth because of good dietetic habits and children with bad teeth had bad teeth because of bad dietetic habits. He pointed out that decayed teeth engendered even worse dietetic habits because foods of a fibrous nature, such as fresh fruits, vegetables, etc., which are cleansing to the teeth and antagonistic to caries, cannot be eaten comfortably or thoroughly when the teeth are decayed.

The mouth is the portal of entry of the digestive system and the teeth are the gates that guard it. Infection of any part of the gastro-intestinal tract is liable to occur from an unclean mouth. This may result from swallowing food which has been polluted in the mouth and contaminated with large quantities of bacteria and septic products from decayed and offensive teeth.

The importance of keeping these "little gates" in good condition is shown by the alarming statistics from the public schools. In New York City it is estimated that 98 per cent of all teeth are perfect when they emerge from the gums but by the time the children reach the first grade, 98 per cent had decayed teeth and one-third had abcess formation. When the temporary teeth are replaced by a second set a new start is made, but even the permanent set rapidly commences to decay so that at the age of fourteen over 85 per cent of school children have decayed teeth, and less than 5 per cent of all children reach the age of twenty-one with a perfect set of teeth.

### DENTAL HYGIENE DIETETICS

There is no doubt but that many of the physical defects which rendered one-third of the young men of draft age incapable of performing service for their country could be traced to decayed teeth and faulty nutrition. The late Sir William Osler once said that if he were asked to say whether more physical deterioration was produced by alcohol or defective teeth

he would unhesitatingly say defective teeth. And yet with all the agitation for prohibition there is no popular movement to prevent dental caries! Sir George Newman, the Chief Medical Officer of the Ministry of Health in Great Britain, said not long ago that "There are fewer questions of greater moment calling for the attention of health and education authorities than this one of diet both in relation to teeth and to the general nutrition of the child. A suitable and sufficient diet is one of the most pressing requirements in relation to the national health."

With the exception of the Eastman Dental Infirmary in Rochester, the Forsythe Dental Infirmary in Boston, and a few prophylactic dental clinics, such as the one in Bridgeport, Connecticut, this very important subject does not receive the attention or consideration it deserves. It can be definitely stated that dental caries is not the result of bad heredity but is caused by improper diet and neglected oral cleansing, and that it can be easily and surely prevented.

The prevention of dental caries should receive attention before the teeth appear. A New York dentist, Doctor Hellman, very recently wrote an article on "Artificial Feeding and its Bearing on General Disturbances and Malocclusion of the Teeth." He discusses several of the disturbances due to bottle feeding which produce changes in the teeth. Out of the 268 of his private patients presenting malocclu-


sion of the teeth 217 or 81 per cent had been bottle fed in infancy. This malocclusion stood in close relationship with the general or systemic disturbances of artificial feeding, such as rickets, scurvy, etc.

### A DENTAL ENEMY—SUGAR

An English dentist, Doctor Colyer, in his book on dental pathology, states that the feeding in infancy and the character of the foodstuffs plays a very important part in the etiology of dental caries. He recommends in the line of prevention:

1. The insistence when possible on breast feeding.

2. The use in early years of life of foodstuffs which require sufficient mastication.

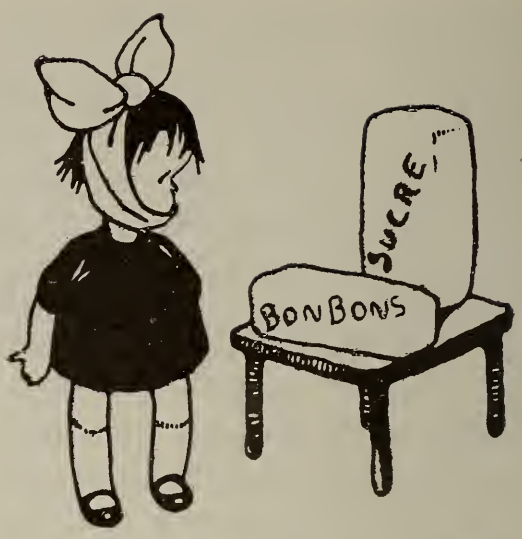
3. The use of carbohydrates which are not easily fermentable.

His remarks on sugar bear repetition. "There is little doubt that of the carbohydrate foods, the sugars are the most harmful, especially when taken between meals. Sweets (candies) as popularly understood should be forbidden as

carbohydrates are now known to be the source from which the lactic acid is derived, it is desirable so to arrange a meal that the last foodstuff taken is neither a sugar nor a starch. Meals should be given at regular intervals. If the salivary secretion is constantly being stimulated by incessant nibbling at food it is probably robbed of its physiological properties and the supply required for the regular meals is depleted and probably altered in character."

The dental department of the Bridgeport (Conn.) Board of Health has issued a number of popular and instructive pamphlets on dental prophylaxis, and one entitled "Sugar, Saliva and Tartar" is of interest in this connection. It points out that the use of sugar is, perhaps, an acquired taste, and that the Esquimos use no sugar and do not know the use of a toothbrush but they have no cavities in their teeth. The Italians use very little sugar and have very few defective teeth while the Americans use a very large amount and have many cavities, although they are so careful about cleansing their teeth. When a great deal of sugar and sweetened foods are used the craving for sugar results and the sugar "habit" is formed. This is not alone harmful to the teeth but it takes away the appetite for wholesome foods and disturbs digestion.

Dr. Fritz Talbot, in discussing a paper on the neglect of the temporary teeth, at the last meeting of the Childrens' Section of the American




Je ne puis plus manger de bonbons: il faut que j'aille chez le dentiste.

Medical Association, said that there was a direct relation between the teeth and digestion and that scientific proof existed that the digestion had a great deal to do with the teeth. The diet during early childhood therefore assumes an important part in the formation and protection of the teeth. There are certain types of food that will keep the teeth and mouth physiologically clean and prevent decay while others will tend to lodge in the crevices and undergo acid fermentation and produce decay. The foods which should be avoided are principally farinaceous and sugary foods without fibrous element, sweet biscuits and cake, bread and jam, fresh white bread and soft crackers, bread soaked in milk, preserved fruits, candies and chocolate.

### A TOOTH GROWING DIET

Among the cleansing foods which are antagonistic to the formation of decay on account of their fibrous

character and high lime content may be mentioned fish, meat, bacon, poultry, vegetables rich both in fiber and lime, such as celery, radishes, turnips, beans, cabbage, carrots, cauliflower, etc.; fresh fruits, especially those requiring mastication such as apples; cooked cereals, whole wheat or bran bread, stale bread with crust, zwieback and toasted bread of all kinds.

The following sample menu will serve to illustrate the type of meals which would prevent dental caries in a child over two years of age:

*Breakfast.* Cooked cereal. Crisp toast or stale bread and butter. Milk to drink. Raw apple.

*Dinner.* Split pea soup with croutons. Rare roast beef. Baked potato. Spinach. Stale whole wheat bread and butter. Rice pudding.

*Supper.* Cooked cereal. Apple sauce. Stale whole wheat bread and butter. Milk to drink.

If in connection with a suitable diet careful cleansing of the teeth night and morning is employed, there will be no unsightly and malodorous teeth, no disturbed digestion from insufficiently masticated food, no deformed jaws from malocclusion of teeth, and our children and our children's children will grow up in better physical condition—stronger men and women.

Diseased teeth are preventable and therefore unnecessary. The principles of dental prophylaxis should be more widely taught and both parents and children should realize that proper diet, local cleansing, and periodic dental supervision will eliminate the aching tooth.


## At the Health Play

FLORENCE EARLE HAVILAND
*Child Health Organization*

THE health plays which were recently given in group competition in New York City were planned, written and encouraged by teachers. Pioneers in the great and important task of vitalizing health teaching, they are securing results from a dramatic presentation of health facts that the purely subjunctive and theoretical teacher never achieved. Learning from the printed page is all very well, but since the important part of the lesson of health is to live it, why not make the lesson a living thing in the beginning?

And so it is hard to tell who is the more excited, this shining eyed child beside me in the audience, or that one whose suppressed giggles come from behind the scenes where she is hurriedly rehearsing the role of Fruit, or Cereal, or even Coffee the villain. For we are at a health play, a most popular school affair. Of course, it is a lesson, too, but how much fun?

Cho-Cho the Health Clown, the Health Fairy, and the Picture Man have done a great deal to waken the American child to being actively and consciously a healthy young citizen.

*"I know something that I'm going to tell,*
*Do as we advise you and you'll be well.*
*Listen very carefully, keep as still as mice,*
*We are going to give you some excellent advice."*

He calls upon *Fruit.* Out she comes with an air of conscious virtue and explains how useful she is in a child's diet.

*Cereal, Vegetable* and *Egg,* each drives a brisk and spirited health message home and has the fun of impersonating something to eat at the same time.

***"Lady, this little boy has no mother!"—a dramatization by the children of one of the stories from "Cho Cho and the Health Fairy"***

In a health play the children act out of a health program, or make personified foods speak for themselves, as in this particular play which is called

"The King of Foods."

*"Hush! Here's the Herald. What has he to say?"*

(He waits stiffly for quiet, and then looks very confiding.)

*An Attendant* brings in *Meat,* represented by quite a small boy.

*"We gave this part to one not tall,*
*To remind you to make your meat portions small."*

This is very definite advice, and the child beside me chuckles in appreciation, for that small boy *Meat* is a friend of his. The children will remember the place of *Meat* on the

menu of childhood.

*Sugar* too, has an attendant.

*"I know her name is Sugar because she looks so sweet,*
*Make your portions of sugar just as small as meat."*

Perhaps there is just a touch of wistfulness in the audience at this point.

But sturdy *Brown Bread* and *Butter* join the group of foods, and stately *Milk* follows. They are all there now, plain to be seen, every food that a child should eat. And the drama has just begun.

*Milk* claims to be the *King of Foods* and all the foods accept him. They are a bland and happy group of courtiers whose complacence is only disturbed slightly by the sudden appearance of *Milk's* rival, *Coffee,* a sinister figure with drawn dagger. They know *Milk* will make short work of him.

*The Herald* goes for *A Judge,* and *Milk* and *Coffee* lay their rival claims before him.

All of the virtues of *Milk,* all of the horrors of *Coffee,* are presented so vividly that no child could forget the implied comparison, and in the end, *Coffee,* the imposter, is driven away with great scorn by the outraged foods.

The child beside me is pleased over the victory of *Milk,* the hero.

A song, and dancing, by *Strangers* called in by the *Herald* finish the play.

Was the play a success? The spontaneous enthusiasm of the participants and the audience is the best indication. They were delighted by it. What stereotyped lesson in hygiene could possibly equal in value this appeal to the child's dramatic sense, this enlistment of his own play instincts? The spirit and verve with which the actors took part in "The King of Foods" is only a promise of what they may achieve in the future. And every successful lesson means more healthy children in America, more parents who know how to approach the problem of malnutrition.

### DR. MILK BOTTLE

If the "King of Foods" was successful, "Dr. Milk Bottle," a slightly more sophisticated production, was equally so. Here is Mary, the lackadaisical school girl who won't take part in athletics or do any of the healthful, vigorous things that her classmates do. They refer her to *Dr. Milk Bottle.*

He is an amusing figure, dressed in a white bottle-shaped gown made over hoops to represent a bottle of milk. Very brusque he is, too, but kindly. He has for *Aids, Protein, Lime, Fat, Sugar* and the *Vitamines* who are twins. In spite of *Mary's* feeble protests these *Aids* put her through a smart examination to the huge amusement and instruction of the audience.

"She's flabby," says *Protein.* "Notice these poor little muscles. Sure sign she has no energy; little vitality. A lack of protein, Sir. Give her plenty of cheese and teach her to like the thick curd of sour milk. Finest stuff in the world. Full of protein."

"Growing too fast, *Mary,*" says

*Lime.* "Build both ways, tall and strong. Get the very best lime. You'll find full quantity and quality in every glass of milk."

*Fat* handles *Mary* roughly enough. "Hands cold, eyes lifeless, posture listless and drooping. Why you're as thin as a rail!" *Fat* proposes to be the cure for this, and Dr. Milk Bottle interposes some terse remarks.

"Chew your milk, *Mary.* Chew the butter out. Don't gulp it down. A pint a day, at least. Come on, *Sugar,* this is a nice girl, I want you to help her."

So *Sugar* has his say about *Mary,* and last of all the *Vitamines,* the magic twins. The result is, of course, an interval of time during which *Mary* is remade by *Dr. Milk Bottle* into a happy, romping, vigorous little girl.

And what has the audience gained from all this? A fairly clear understanding of the food value of milk, plus all the fun and interest of the adventures of Mary. Psychologists tell us that these impressions which are made most vivid and interesting by their attendant circumstances are retained the longest.

Children who saw the play "Dr. Milk Bottle," will not only understand, but remember why milk is an essential food for the children. There is no end to the possibilities of such dramatic presentations, and the development of this effective method is entirely in the hands of the teacher. It is not the finished production, but the spirit in the producing that spells success or failure.

Simpler plays may be developed to teach health facts in a more or less dramatic way to the younger children in the schools. But it has been said that the older children appreciate the simplest, and the younger children seem to understand the more elaborate forms of health plays and games, and that less adjustment to age has been found necessary than was at first expected.

"The House that Health Built," for instance, is not as complicated as a play, but is a sort of progressive recitation by half a dozen children carrying charts to represent a well-nourished girl, a pint of milk, cereals and other foods. As the children recite, they build the house with the charts. The rhymes are instructive and amusing, with the repetition familiar in the "House that Jack Built." This might be used in less advanced grades.

The main idea of dramatizing and making vivid to the child all the rules for healthy living with the child's own co-operation is so sound that it will appeal to parents and teachers everywhere. Soon will be added to the Health Fairy, Cho-Cho the Health Clown, and the Picture Man, that curious genius, the American School Child Himself. With his assimilative powers he will grasp and portray to his schoolmates and parents the health knowledge that will replace any outworn standards of living that now cripple our youth.

# Salvaging Crippled Children

Mary Perkins Ivey, R.N.

*Supervisor, Chicago Visiting Nurse Association, Infantile Paralysis After-Care Committee*

THE serious epidemic of infantile paralysis that so alarmed the entire Eastern coast in the summer and early fall of 1916, touched Chicago and some of the central states fairly lightly, but, in anticipation of an equally serious time the following year, the special work of the Infantile Paralysis After-Care Committee of our Visiting Nurse Association was planned. As everyone remembers, there were approximately 9,000 cases in New York City alone; but the whole State of Illinois registered only 769, and the City of Chicago, 276 of that number.

The care during the infectious stage of the disease was controlled by the Department of Health which placed in hospitals all patients as soon as diagnosis had been made—all, of course, except that small percentage of lost acute cases which in some mysterious way escape being reported, usually because the patient is not considered sick enough to have a physician. For instance, in 12 families where there had been positive cases, it was found that other members of the family, after having had symptoms of the disease, made rapid recoveries. There were also vague stories of other suspicious cases, making it evident that there should be some further supervision of homes from which positive cases are removed.

## FACTORS OF THE PROBLEM

Poliomyelitis presents different problems from other infectious diseases, because the paralysis through which almost every patient has to pass, varies so greatly both in duration and in severity. In 1916, the children showed extensive paralysis, both in single muscles and in muscle groups, and certainly more deformities; in 1917, there was marked improvement, due to more intelligent after-care, and possibly, in part, to the use of serum treatment; while in 1919, the group of new cases showed more spontaneous recoveries than in any other year during our experience.

The problem of giving the best care possible to the children through the period of paralysis was the one which two sympathetic and keenly interested Chicago physicians asked the Visiting Nurse Association to study. A committee was formed of directors of the Association and interested physicians. This committee appointed a visiting nurse to make a survey of 240 cases.

## METHOD OF THE SURVEY

The results of the survey soon showed hundreds of children need-

ing special after-care, but we also discovered that there were no nurses trained to give this, and so, while we were making arrangements with three special dispensaries for examinations and treatment of the children, we also planned a course of lectures and demonstrations for five of the visiting nurses. Later, a visiting nurse was sent to the special course in Infantile Paralysis After-care given by Dr. Robert Lovett, in conjunction with the Boston Children's Hospital. This course consisted of the theory and practice of muscle training, appropriate massage, the application of apparatus, and the intensive study of anatomy.

Our work began with the survey in November, 1916. In February, 1917, the city was divided into four districts, a nurse in charge of each. Letters outlining the plan of our work and asking permission to call were sent to homes in the better residential districts where an unannounced visit from the nurse might have been resented. A few of these letters were ignored, but in many instances the interview was granted and the eager questions from the parents showed their interest. In many instances the work for some time consisted of instruction rather than nursing, for the nurses really knew very little about the after-care treatment, and before experimental work would be welcome, more cordial contact had to be established with the patients.

### THE CLINIC

Mothers not able to pay a physician were urged to take their children to one of the three special clinics. When it was impossible for the children to go on the street car, arrangements were made for transporting them in taxicabs, and later the Visiting Nurse Association was given a Ford sedan which is still in constant use.

At the clinic the surgeons made a thorough examination of each case, prescribing the necessary exercises and ordering apparatus whenever it was indicated. In the beginning a number of children had to be put on Bradford frames to insure proper position. This necessitated teaching the mothers the proper use of pads and straps. Plaster casts were often applied to overcome deformities resulting from the disease. With the casts the nurse's care lay in watching the children closely to see that there were no constrictures. The mothers had to be taught how to care for the younger children particularly, and it was hard work, sometimes, persuading fond and misguided parents that the casts were necessary and were not to be cut down just because the children did not like them.

As a rule, the clinic orders were for muscle examination, light massage and exercises. After a careful muscle examination each nurse worked out the appropriate exercises and the children were returned to clinics every two months, when

possible, or oftener if the surgeons desired. Many of the children were cross and difficult to manage. With them superficial massage was not tried, merely a quick rub to start the circulation, because the exercises were the important thing. The treatment often involves a game to hold the baby's interest, while at the same time the nurse tries hard to get him to work his muscles as well as he can. A complete muscle examination involving the testing out of various groups of muscles to ascertain their power, with a written record of the same,

These children, now in school, were apparently hopelessly crippled when first referred to us in 1917. The girl at the right had a serious involvement of arms, legs, spine, and abdominal muscles. She could not have held the wooden dumbbell then. The girl at the left can now hold herself erect for about a second, and is learning to balance. We now hope that some day she will walk without crutches. Three years ago we sent a shut-in comfort teacher to the girl in the middle because, even to us, it seemed as if she would always be housebound.

often takes two or three visits.

If it is a possible thing, the nurse gives the treatment without any other audience than the mother, but in a crowded district home, this is not easy to arrange and one frequently sees a small, interested group of brothers and sisters standing near by and counting with the nurse as the baby goes through his exercises. More often than not, there is a reward for good behavior, a gold star to be pasted in a scrapbook, a toy or a piece of candy.

### EDUCATING THE PARENTS

Parents are often the real problem. It is hard to convince the very ignorant that long, tedious, and—when apparatus is required—expensive treatments are necessary. Fortunately, not all of our parents are difficult. The devotion of some mothers is wonderful. Along with their household duties they find time to give a daily treatment, to go to a clinic or even to take in sewing to pay for the braces. The burden of a crippled child in the average home is very heavy, and doubly heavy when adequate treatment is going to be given for its deformity, for not only does the child frequently require a new bed and a Bradford frame, but leg braces almost always imply new shoes. Paralyzed arms and legs grow almost as rapidly as normal ones and expensive braces are outgrown fairly rapidly. These must be replaced if brace treatment is going to be really effective.

Our Committee sometimes gives the apparatus outright but we have found that families use it more carefully if they have to pay for it, in part at least. In 1919, out of a large number of braces ordered, only six were given outright, and these in families where extreme poverty made any other plan impossible. For the most part we find it works well for the Visiting Nurse Association to assume the cost of the brace, allowing the family to pay back as it can.

### THE BANE OF THE FAKER

One of the most difficult problems the nurses have to contend with is to persuade some of the parents to give certain treatments a fair trial. Some people distrust the clinics because there is no charge, and after attending one for some time, with no very marked improvement in the child's condition, they become dissatisfied and want to try something new. So they go perhaps to a neighborhood "doctor," who, for $50 down, guarantees to have Jennie walking in two months. His manner is so convincing that the parents hastily borrow the money and try him.

One mother heard of a "healer" in a nearby state. Every day for three weeks she left home early in the morning, carrying a heavy child, and made the trip, returning at night, tired out. A man with a turban on his head made a few passes over her child's body, muttered some words in a language she did not know, took her $3 and sent her home. She is now under our

care again, sadder, wiser, and poorer.

### AN EGG-NOG SPECIFIC

A little boy whom we are keeping on for observation only because there is no doctor on the case, gets a marvelous bath every day, prescribed by one of the old women of the district. It consists of two quarts of milk, two of wine, two pounds of sugar, and a dozen fresh eggs. In this mixture the child sits for an hour while the mother rubs him with it. She can always find money for the ingredients but never for a doctor's fee, and she scorns a free clinic.

### HOW THE WORK HAS GROWN

During 1919 we carried 692 cases, dismissing 175 of this group; 43 had made a complete recovery, and 102 had improved; 18 to the point where the doctors, after a careful examination, felt that no further care would be necessary. Others of this group were dismissed for various reasons, a number having moved out of the city. Of the 272 new cases taken on in 1919, 106 were taken ill that year, 58 during August.

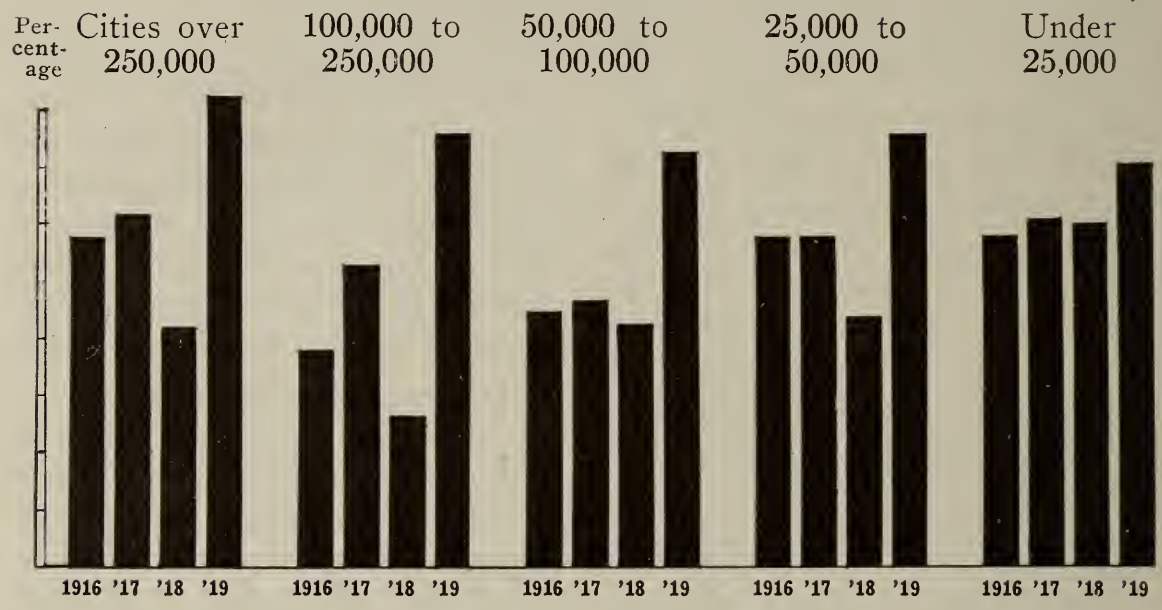
The nurses made a total of 15,126 calls. The number of private doctor cases increased appreciably also, much to our satisfaction, for when we began our work very few physicians felt that we would accomplish anything. Of the more than 500 children at present under our care, nearly 200 are going to school. Some of these seemed almost hopelessly paralyzed when first referred to us.

We have an increasing demand from physicians and parents for the special form of after-care work we offer, which is perhaps the best proof of its value. The staff has grown from four to eleven nurses and a supervisor, and the indications are that it may be still further increased. It has been demonstrated that a nurse can properly care for a district numbering from 40 to 50 cases, all receiving special treatments regularly, a treatment varying in length from 30 minutes to an hour and a half. The work was started with 1916 cases only, but so many requests have come in for care for children ill previous to that time, that we have gradually absorbed many of these older patients.

Along with the practical work in the Districts, the nurses have attended weekly classes in anatomy, physiology, and massage, and some special demonstrations in dissection, which have been most helpful, not only serving to increase their practical efficiency but keping their interest stimulated. Improvement is slow under some conditions, and to the courage and the patience of the nurse is due many of our best results.

# Guide Posts to Progress

A Diagram Showing How Cities of Various Sizes Have Gained in Saving Infant-Life Between 1916 and 1919.




Percentage of cities in each group with infant mortality rates below 100.

This diagram has been prepared from the materials received from health officers of 269 cities in the United States. The American Child Hygiene Association this year has carried out this investigation which heretofore was undertaken annually by the New York Milk Committee. Information was received from each of the cities as to the number of births, number of infant deaths and the number of deaths under one month. This investigation makes available the facts of infant mortality in cities at least a year before the Government reports are issued.

The diagram shows several interesting facts:

First, in 1919, more cities had infant mortality rates below 100 than ever before. This was true in each group of cities, irrespective of size. In the first group, 83 per cent of the cities had rates under 100 in 1919; in the second group, 77 per cent; in the third group, 73 per cent; in the fourth group, 76 per cent; and in the fifth group, 71 per cent. Second, the proportion of cities with infant mortality rates of 100 in 1918 was very low in every case because the influenza epidemic caused the death of many babies, and only a comparatively small number of cities had rates below 100. Third, apparently, the larger the city, the greater is the probability of obtaining an infant mortality rate below 100. This has only one exception; the cities of 25,000 to 50,000, many of which are

vieing with the largest cities in providing adequate care for mothers and babies.

Copies of the full tables showing the infant mortality rate of the 269 cities and graphic representations of the principal facts can be obtained from the Association.

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# Nutrition Classes in Chicago High Schools

Mrs. Ira Couch Wood

*Director, Elizabeth McCormick Memorial Fund, Chicago*

THE Elizabeth McCormick Memorial Fund, of Chicago, is a welfare foundation devoted at the present time to the promotion of the health of the school child. From 1908, when the fund was established, to 1919, its efforts were centered on the establishment and conduct of open-air schools. Without abating in any way its interest in such schools, which in Chicago have now been partially taken over by the Board of Education, but realizing that the open-air school was not proving a complete solution of the problem of malnutrition, the Memorial Fund became interested in the nutrition class as a possible additional agency in the health program. With the end in view of investigating values and means, various eminent authorities on nutrition work with the child were invited to come to Chicago to lecture upon their methods. Among these was Dr. William R. P. Emerson, of Boston, whose first lecture in Chicago was given before the International Child Welfare Conference, arranged by the Children's Bureau in May, 1919. A series of talks by Doctor Emerson followed, before educators and others keenly concerned with the physical condition of the school child. At one of these lectures, quite a number of high school principals and teachers were present. The practical methods outlined to them by Doctor Emerson inspired them to try the nutrition class as a possible remedy for the very patent physical unfitness of many of their pupils.

Two physiology teachers in particular had the unique conception of using the nutrition class to demonstrate their science in concrete form, that is, to teach it in terms of their students' health. They therefore had the nutrition class incorporated within the usual physiology time-assignment, as a definite part of the curriculum; and it was decided that the student should be given credit for work in the nutrition class, precisely as he is for the other studies successfully carried through the school term.

Three classes were formed: a boys' class and a girls' class at the John Marshall High School (hereafter called High School A), and

a class of boys and girls at the Parker High School (High School B). At the former, the entire freshman class entering school at the beginning of February, 1920, was weighed and measured; at the latter a group of boys and girls from the physiology class who were most evidently and immediately in need of help, were weighed. This tabulation shows the basis of these three nutrition classes:

high schools came, for the most part, from comfortable homes, and some of them from families quite well-to-do, the percentage of individual underweight ran higher than in any elementary school groups so far studied, reaching 31 per cent in several cases, the girls averaging more underweight than the boys.

This would tend to show that malnutrition and physical defects

TABLE I

| | High School A | | High School B |
|---|---|---|---|
| | Boys | Girls | Boys and Girls |
| Membership, initial weighing..... | Entire class | Entire class | The evidently malnourished |
| Number weighed..... | 300 | 600 | 69 |
| More than 10 per cent underweight | 40 (13 per cent) | 84 (14 per cent) | |
| Basis of selection of class..... | Those most willing to enter | Those more than 10 per cent underweight | Those apparently most needing help |
| Number in class..... | 34 | 31 | 48 |
| Underweight less than 7 per cent.. | 12 | 0 | 0 |
| Underweight 7 to 10 per cent..... | 8 | 1 | 11 |
| Underweight 10 to 20 per cent..... | 12 | 18 | 30 |
| Underweight over 20 per cent..... | 2 | 12 | 7 |
| Physical examinations given..... | 27 | 26 | 7 |
| Children with physical defects.... | 20 | 22 | 7 |
| Children "free to gain"..... | 7 | 1 | None of those examined |

It is the usual custom in the nutrition classes, as carried on by the Elizabeth McCormick Memorial Fund in the Chicago grade schools, to select for the class the children who are habitually 7 per cent or more underweight. But, in the high schools, this number was so large that all could not be accommodated, and those most underweight were chosen.

Although the students in these

uncorrected in childhood produce increased and more serious results in adolescence. The work with these high school boys and girls, and with the group of children coming to the Employment Certificate Bureau in Chicago for working papers, has disclosed an appalling amount of physical unfitness and malnutrition, and gives one a better comprehension of the reasons for the army rejections.

The nutrition class is usually limited to 20 members, but the need of these young people was so desperate that a larger number was admitted. Better individual results might have been attained with the smaller classes. It was found to be a mistake to have boys and girls in the same class, as they are at this age too self-conscious to discuss some health problems freely. The boys, too, must be appealed to from one angle and the girls from quite another, to inspire them to make the real effort for weight and health gains, an effort of self-denial and determination which involves the best sort of character building.

The nutrition class must have a sound medical basis if it is to be successful; therefore, the aim is to have every child given a complete physical examination, while stripped to the waist; the parents' consent being secured, of course, and one of the parents being present at the examination, if possible. The boys in "High School A" were examined by the physical director, a graduate physician not in practice, while the girls were examined by a woman physician in general practice. It was not possible to have all the students carefully examined in "High School B," but seven who failed to gain were examined by a woman physician and all found to have serious physical defects. Most of the defects in all of the children were of a remedial character, but several organic cases of heart trouble were found, hitherto unsuspected. Eight children had defects remedied during the term of the class, and a large number promised to have tonsils out this summer. These classes were started in the winter when there was much influenza and many heavy colds, and therefore irregular attendance, owing to illness. The physician's findings were all noted by the nutrition worker on a form adapted to children by Doctor Emerson, from those used in the army and by insurance companies. The form is unusually complete and calls for most careful attention to minute details.

The classes were in general charge of the physiology teachers, but the Elizabeth McCormick Memorial Fund provided, by request, three nutrition workers, one for each class. The school principal, teachers, and physical directors gave enthusiastic co-operation, but the interest of the parents was much more difficult to secure. The classes were too large to permit the nutrition worker to make many home visits, while it took some time and much effort to persuade the mothers to attend the class. This home co-operation is so vital a part of the nutrition class program that one might almost say that the results are in proportion to its extent. It was difficult to make these parents realize that their children were in a serious condition. They were perfectly satisfied, so long as the child was up and about, that all was well, and all the parents offered the everlasting, universal excuse, so falsely

| | |
|---|---|
| Age 15. | Underweight 18.5 lbs. 18 per cent. |
| Height 61 in. | Average Height for Age 61.6 in. |
| Weight 84 lbs. | Average Weight for Height 102.5 lbs. |

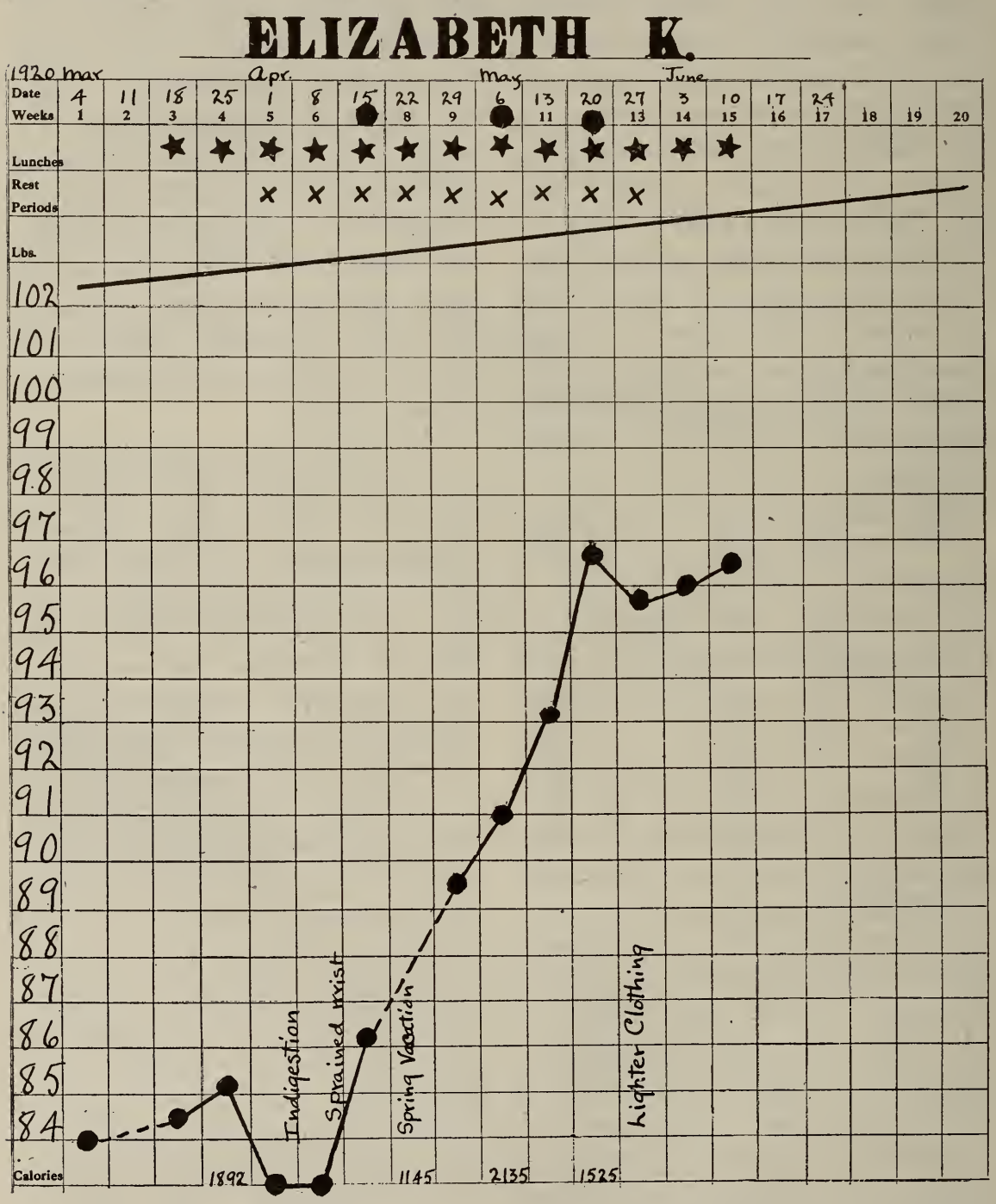



CHART OF ELIZABETH K

The general methods of these High School Nutrition Classes followed those developed by Doctor Emerson in the clinics of the Massachusetts Hospital and elsewhere. A graphic chart, 20x30 inches, was prepared for each member of the class. On it were noted the age, weight, height, average weight for height, average weight for age, pounds and percentages underweight. Pounds are indicated at the left of the chart,

weeks at the top. Each square represents, therefore, one pound and one week's gain or loss. The average expected rate of gain, figured for height and age, is carefully platted and indicated by a black line across the top of the chart. The actual weight taken when the class meets each week is indicated by a red line, and large red dots. A dotted line indicates absence from the class. An occasional circle, three of which are shown on the chart, indicates that at that particular weighing the child made the greatest weight gain of the class. The row of stars shows that the mid-morning and mid-afternoon lunches have been taken, only a small amount of simple food, such as a glass of milk and bread and butter, or graham crackers and milk, for example.

In all the classes outside of the high schools the X's in the lower row indicate that two rest-periods a day (including Saturday and Sunday) have been taken, a forty-minute rest just after the mid-morning lunch, and twenty to thirty minutes in the middle of the afternoon. Because of the single session in these high schools, the lower row indicates that rest was taken at home in the afternoon.

consoling, that "the father is thin," or "the grandmother was the lean kind," or "weight never runs in our family". Yet most of these overworked, under-nourished, physically handicapped young people were flying signals of distress in their faces—pallor, sallowness, circles beneath the eyes, some listlessness, some worried and "driven" looking. They were round-shouldered, hollow-chested, with flabby muscles, almost too tired to drag themselves about, but nevertheless restless; unfit for any tasks, yet with heavy burdens of study and outside work placed upon them.

It is noteworthy that credit was given for rest instead of exercise by the physical training department. This was one of the most helpful accomplishments of the winter's work and marked a great innovation in school procedure, but a sound one, and helped greatly to induce gains, as the lives of the high school children are run by "credits". During the rest period each boy and girl was taught to lie flat on his back, with a small pillow beneath the shoulder-blades, to afford complete relaxation from the "fatigue" position of rounded shoulders, protruding shoulder-blades and prominent abdomen which his weak muscles impose on him while standing.

The first business of the class, which meets once a week, is the weighing of each student. Progress or loss is graphed on the charts together with possible history explanations of losses; also the number of rest periods and lunches taken, and the measured-feeding record in calories which is entered at the foot of the chart. The latter is based upon a record of food taken during any consecutive 48-hour period of the week, which the child enters in a schedule given him, which also bears all necessary tabulated information and explanation for making the computation in calories.

All the charts are then hung, in the order of comparative gain, in the front of the classroom, and the students seated in the same order in the class. The physician directing the class, or the nutrition worker, follows an examination of these charts with the class, by a talk on

the amounts and kinds of exercise to which an underweight boys should limit himself, or ways of inducing relaxation for the over-tired child, or the kinds of food most certain to bring weight gains and growth, calling attention especially to the value of milk and butter fats as growth producers, and urging the use of cereals, fresh vegetables and fruits. In spite of difficulties which have arisen, sometimes because of lack of parental control, frequently because of the overcrowded school program, the brief period allowed for the noon lunch, or the home work that had to be done, two of these high school classes made satisfactory gains.

The most encouraging results were had with the group of girls in "High School A." The majority of them lived according to the nutrition class regime very conscientiously for fourteen weeks. At the outset only one member of the class was less than 10 per cent underweight. Sixty per cent weighed between 7 and 20 per cent less than they should have; 39 per cent more than 20 per cent less. The median of underweight for the class was 19 per cent, the average gain per individual, for the entire period, was 5.56 pounds, which is 269 per cent of their expected gain. Three girls gained more than 10 pounds; 16 gained from 5 to 10 pounds; 11 gained less than 5 pounds; only one lost, due to severe influenza.

Elizabeth K., who is a member of this group (her chart is given on page 130), by a 12.5 pound increase in weight in a little more than three months, reduced her underweight from 18 per cent to 7 cent. The presence of all the possible circles, stars and X's on her chart, indicating her faithfulness to the program, and a gradual increase in food, shows how she achieved this result. It is interesting to note the increased gain in weight corresponding to the stars for rest periods and extra lunches. Elizabeth followed the nutrition

TABLE II

| | High School A | | High School B |
|---|---|---|---|
| | Boys | Girls | Boys and Girls |
| Class in session from | 3/11 to 6/11 | 3/4 to 6/11 | 12/10 to 6/15 |
| Average period membership in class, per member | 9 weeks | 13.6 weeks | 10 weeks |
| Number of pupils in class | 34 | 31 | 48 |
| Number gaining | 24 | 30 | 42 |
| Total pounds gained | 57.5 | 174.75 | 122 |
| Average pounds gain per child | 1 7* | 5.65 | 2.5** |
| Percentage of expected gain | 85 per cent | 269 per cent | 122 per cent |

*Religious lessons after school hours and work after school hours held back many boys.

**This class had rest period during school hours only for the last six weeks. Several boys working after school. Several serious illnesses.

worker's instructions carefully, cooperating with her parents and the family physician, who made her physical examination as soon as her underweight condition was disclosed by the school tests. It will be noticed that for the last two weeks of school in June, Elizabeth's chart shows little gain. This record was duplicated by almost every member of the class. It seemed to be due somewhat to a week of very hot weather, and also to the extra strain all the young people were placed under toward the closing of the school, with special activities and entertainments, work for examinations, worry over the passing of grades, etc.

In general, gain has been slower with boys' classes and with boys in mixed classes than with girls, in the upper grammar grades as well as in the high schools. Perhaps the older boy's problem is a little more complicated. A few histories from the "High School B" mixed class will illustrate some of the possible reasons. Oliver, tall and lanky, 15 per cent underweight to begin with, gained 2½ pounds in five weeks, in spite of the fact that he still has a serious nasal obstruction. Then he had a loss, caused by a heavy cold; another, apparently by worry, because he remembered that the family physician had implied he might have a tuberculous infection. Even a child is pulled down by worry; and on the contrary the upward lift of happiness is enormous. Oliver was persuaded to give up working after school, until he could reach par in weight and he gained 1¼ pounds the first week, after the change in his program.

For a few weeks after he joined the class Frank's weight record travelled along on an almost horizontal line, at about 21 per cent below his expected weight. Frank was willing to follow the regime the nutrition worker asked of him only to the extent of giving up coffee. He could not but notice, however, how much more rapidly some of the boys in the class were gaining. Perhaps he was spurred on by a desire to "make" the baseball team. At any rate, one day he decided to see what extra lunches and rest-periods would do for him. In two weeks he gained 3¼ pounds. His eyes are alert now, his cheeks getting rosy, he finds it much easier to get his lessons.

Wilbur was the first graduate of the "High School B" class. In 15 weeks of steadily following the regime, his weight travelled from 7.3 per cent underweight to 1¼ pounds "over the top" of the average weight line; and he was given the attractive diploma which the Elizabeth McCormick Memorial Fund provides in recognition of the good work done. For it is work, and should have proper recognition. Wilbur came over from a grammar school a few blocks away. He had heard about the "nutrition class." When he was refused a "working certificate," at the office

of the Employment Certificate Bureau of the Board of Education of Chicago, it occurred to him that the nutrition class was the very thing he needed, and he applied to be enrolled. He couldn't get a job until he was armed with that "working certificate," which is given only to those who measure up to the physical standard required under the wise provisions of the Illinois Child Labor Laws. Fortunately the nutrition class now offers help to such working boys and girls, whose necessity gives great incentive to follow the program.

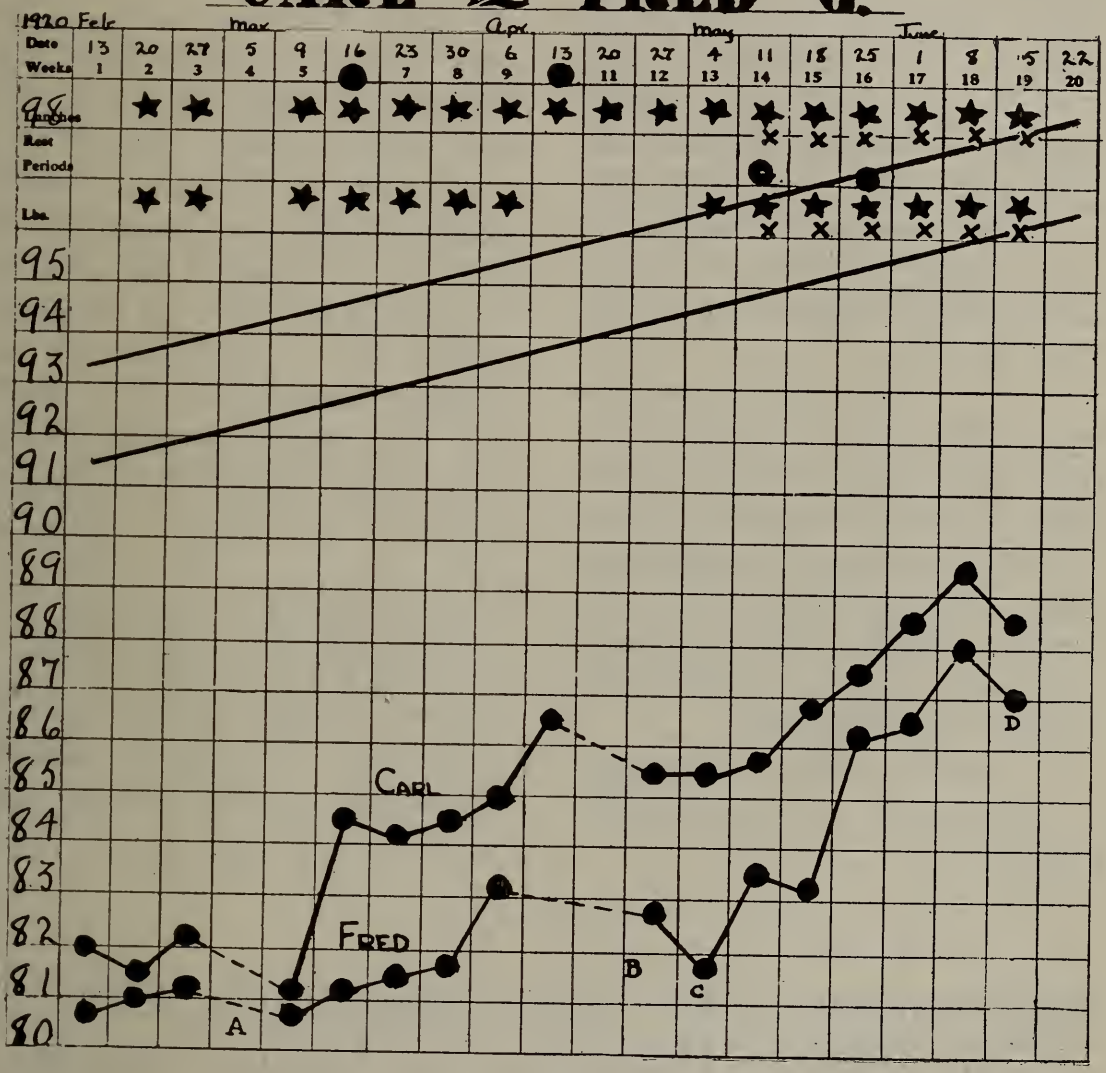
All of these high school students told practically the same stories. Irregular meals, hurriedly eaten; a very inadequate breakfast, chiefly bread and coffee, swallowed in a minute or two to make school on time; little milk to drink; up late nights, at movies, dances or studying; a diet of much meat, little fruit or vegetables, except potatoes, and rarely, cereal; all these testified to their inadequacy, or harmful effect in the depleted physical condition of these young people. Many of the Jewish children were given two hours or more of religious instruction after school hours; while other children worked, not always from necessity, but tempted by the high wages now paid, to earn extra spending money. All were expected to join in athletics, or physical training, unless by chance some organic defect was reported. Until the advent of the nutrition class, underweight was not considered in relation to physical activities, but this winter's experience has proved to the physical director that over-exercise for the undernourished boy or girl is a serious matter, bringing down weight as well as lack of food. The value of rest was amply proved in these classes, as it has been in all the others carried on in Chicago, and the over-stimulation of children and young people in this country will have disastrous results for the nation if it is not counter-balanced by more rest and sleep.

Mentally these children might be divided into two groups (about as we find them in all our classes). First, the very clever children, developing brain at the expense of body, eager to learn, sacrificing everything for it, particularly the Jewish children; and second, the dull, slow, backward children, slaving to keep up, whipping on their tired brains and bodies to extra exertions to make their grades, the despair of their teachers, and often the acknowledged disgrace of their ambitious families. This latter group showed the most marked improvement in mental alertness corresponding to gains in weight. Their lessons were learned in much shorter time; they went at their tasks with zest; and their dispositions changed from those of irritable, nervous, "finicky" invalids to the cheerful, easy-going, adaptable American boys and girls we all cherish as our ideals.

| | Carl | Fred |
|---|---|---|
| Age..... | 14.7 yrs. | 14.7 yrs. |
| Height... | 59.5 in. | 59 in. |
| Weight.. | 82 lbs. | 80 lbs. |

| | Carl | Fred |
|---|---|---|
| Underweight | 11.4 lbs., 12 per cent. | 10.6 lbs., 12 per cent. |
| Average Height for Age | 61.7 in. | 61.7 in. |
| Average Weight for Height | 91.5 lbs. | 91.5 lbs. |

# CARL And FRED G.




A. Vacation; helped move.

B. (Carl) Overfatigue.
(Fred) Tonsilitis. Cold.

C. (Fred) Headache. Cold.

D. Lighter clothing. Grandmother ended visit. Less food.

Carl and Fred G. belong to the "High School B" class. They are twins, and they show interesting similarity in response to treatment. Each was 12 per cent underweight when the class began. With questionable tonsils not yet removed, and no rest-periods, both were making gradual progress. Spring vacation came. They helped their mother move. The descending dotted lines show the loss of weight which was the result of this over-fatigue. In April,

Fred had tonsilitis, no extra lunches, (mother being a very casual person); while Carl had to do his brother's "chores" and so lost from over-fatigue what his brother lost through illness. The amount of home work was lessened by the school, it could not be given up entirely, and rest-periods were taken each day. Both gained more rapidly and steadily; in five weeks Carl gained 4 pounds; and during the same period, May 4th to June 8th, Fred gained 6¼ pounds. For the loss shown at the last weighing, just at the close of school there were two reasons, the changing of winter for summer clothing, and the departure, on June 8th, of their grandmother, who, while she had been visiting in their home, had devoted a great deal of time and thought to the preparation of nourishing meals and lunches for her grandsons. Both boys spontaneously ascribed their losses to the ending of her visit!

In these high school classes the five reasons for malnutrition, as assigned by Doctor Emerson, have again shown themselves to be an invaluable guide in the search for causes and remedies of undernourishment. Perhaps these are not as well known as they should be, and may bear repeating here:

1. Physical defects (particularly obstructions of the breathing passages).

2. Lack of home control (the disorganized, badly directed family, rich or poor).

3. Over-fatigue.

4. Lack of food, and faulty food habits.

5. Faulty health habits.

It will be seen that these reasons apply to rich as well as poor, and certainly the experience with the three high school classes has shown that the problem is one of ignorance and not essentially of poverty. This points the way to the remedy, therefore, as the more hopeful and constructive one of education, rather than that of charity or of economic revolution. The proper place, too, for the nutrition class is in the schools, where it may become part of the educational system, and where the four agencies acting for the protection of the child may be most easily co-ordinated, that is, the home, the school, medical and nursing service, and the child's own interest.

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# Appointment of Dr. Helen MacMurchy Chief of Child Welfare, Department of Health, Canada

CANADA has authorized the establishment of a Child Welfare Department as part of its governmental activities. When the proposal was made that this department be established, the qualifications of its director were outlined as follows: "An education equivalent to graduation from a medical college, at least seven years' experience in the practice of medicine (several years of which must have been in connection with child welfare work), and experience in organizing and carrying on educational and propaganda courses. Such a person must have also investigated and reported the follow-

ing lines of service: mother and child welfare, including the care of defective, dependent and delinquent children, as well as general public health matters. Finally the director chosen must be a writer and speaker of recognized ability, and possessed of tact and good judgment."

To find a person who could meet all these requirements would seem an impossible task, but Canada is fortunate in having a physician in the person of Dr. Helen MacMurchy, who is highly trained and eminently well fitted to assume all the responsibilities of this office. Doctor MacMurchy has accepted the appointment, and has the distinction of holding the most responsible position offered a woman in Canada.

"It was during her private practice that Doctor MacMurchy began her investigations on the question of infant mortality," says Ethel M. Chapman in MacLean's Magazine. "On November 11, 1909, a conference on the problem of infant mortality was called at Yale University and Doctor MacMurchy went to Mr. Hanna, who was then Provincial Secretary for the Province, and told him that a representative from Canada should attend. When she came back she told the Provincial Secretary that she had enough valuable information on the subject to make a report—that Ontario could not afford to go on without having the facts of the matter put before the people. This was the first report on infant mortality published by any government. Some time afterward an American doctor inquired of the Bureau of Vital Statistics, Washington, for the best information obtainable on infant mortality. 'The best book on infant mortality,' she was told, 'has been written by a Canadian, and it is a government report.'

"In 1913, Doctor MacMurchy was appointed by the Ontario government as Inspector of Feeble-Minded and of Public Institutions. In 1914, she was made Inspector of Auxiliary Classes under the Department of Education.

"In this latter position she had the opportunity of helping not only mentally defective children, but also those suffering from physical handicaps. Under her direction, special classes were organized in different schools through the Province for the children who needed special help.

" 'All reformers, sooner or later,' she says, 'come knocking at the schoolroom door. Our only hope of reconstruction is through education.' She has published several books on Auxiliary Classes, and a rare little gem of a booklet in the form of a letter to school inspectors, trustees and teachers of backward pupils.

"Doctor MacMurchy's new book, *The Almost,* is on the market. It is a study of the feeble-minded and reflects the author's sympathetic, optimistic attitude to the unfortunate of all classes."

# MOTHER AND CHILD

## A Magazine Concerned With Their Health

Published every other month by

THE AMERICAN CHILD HYGIENE ASSOCIATION

1211 Cathedral Street
Baltimore, Md.




**OCTOBER, 1920**

## Infant Mortality in 1919

THE American Child Hygiene Association has collected the facts from 269 of the larger cities of the country, concerning the births and the deaths of infants which occurred during the year 1919. The purpose of this painstaking inquiry was to determine to what degree the great wastage of infant life was being controlled, and to find out which cities were excelling in their efforts; which were marking time, and which, if any, were failing in this very important part of their public health work. The results are very striking and well worth the attention and even the study of the mothers of America.

The first important finding of this investigation is that last year was the best one on record in the saving of infant life. In these 269 cities 686,525 births were registered and 60,013 infants died in their first year of life. That is, for every 1,000 babies born alive, 87 died under one year of age. This is the "infant mortality rate,"—that is the proportion of deaths under one year of age to each thousand living births. It is the measure by which health officers and others interested in child welfare take note of the progress of the baby-saving campaign. It was only a relatively small number of years ago that this infant mortality rate in the larger cities was 130, instead of 87, or over. It was considered a great achievement when such progressive cities as New York, Philadelphia and St. Louis succeeded in reducing their infant mortality rate to 100; and yet in 1919, the infant mortality rate had fallen 13 per cent below 100 in the group of 269 cities. The progress of recent years is something to be proud of and shows that American mothers can be counted on to support their health officers in their campaign against infant mortality.

The second important lesson taught by the facts collected by the Association is that not all cities are equally fortunate in their infant mortality rate. There is still much variation. The Pacific Coast cities have infant mortality rates around 65. In Pasadena the rate was 54, and in Berkeley only 44.

A few cities in the East also did very well. Brookline, Massachusetts, had a rate of 40. On the other hand 19 of the 269 cities had an infant mortality rate over 120, and one, Burlington, Vermont, as high as 150. If we take Burlington's rate as a high water mark, it means that a baby has nearly four times as good a chance to survive the first year of life in Brookline as in Burlington! What is the matter with Burlington?

But there is a more instructive way to study this variation in infant mortality rates than by taking the extremes. Let us arrange the cities according to their size, placing together those having a population of 250,000 or more, those next in order having from 100,000 to 250,000, and so on down the scale until we reach the cities having a population less than 25,000.

In the following table the facts are presented on this basis:

| Size of City | Number of Cities | Average infant mortality rate | Number of cities having an infant mortality rate under 100 | Percentage of total number of cities having an infant mortality rate under 100 |
|---|---|---|---|---|
| Over 250,000 | 23 | 85.3 | 20 | 83.3 |
| 100,000 to 250,000 | 34 | 89.3 | 26 | 76.5 |
| | 48 | 90.8 | 36 | 72.9 |
| 25,000 to 50,000 | 67 | 84.1 | 51 | 76.1 |
| Under 25,000 | 96 | 88.4 | 68 | 70.8 |
| All cities | 269 | 87.4 | 201 | 75.4 |

Columns 3 and 5 are the important ones. They show that the very large cities (having a population over 250,000), and those having populations from 25,000 to 50,000 have the lowest infant mortality rates. The very small towns and those that are of large size but not as yet of truly metropolitan character, fare not so well. Mothers in these towns do not as yet enjoy the organized civic efforts which only the very largest cities have substituted to replace the neighborliness which, while kindly, is found to be, on the whole, very inefficient. Mothers everywhere, irrespective of the size of the city, should demand the same facilities which only the largest and the prosperous small cities think they can afford.

Another important lesson from the figure collected by the Association is that the number of deaths of babies under one month of age continues high. In 1919, 43 babies out of every 1,000 born, died before they were one month old. This means that nearly one-half of the infants that died during their first year, succumbed during their first month. This first month is the most dangerous period of babyhood and the figures indicate that so far but little progress has been made to make this month safe for babies. The great saving in infant life which has been accomplished in

the past 20 years has been made in saving the lives of babies more than one month old. By controlling such diseases as diarrhoea and enteritis, and other ailments which follow the improper feeding of infants. Infant welfare work has been almost synonymous with teaching mothers how to nurse and feed their babies. The deaths in the first month of life are caused by conditions which have little or no connection with infant feeding. The deaths in the first month of life are the result of malformation, of premature birth, of congenital weakness, or follow from injuries received at birth. The great majority of them reflect the poor physical condition of the mothers during pregnancy. Many of these deaths reflect the poor obstetrical service which was available to women in confinement. The remainder of these deaths are due to causes which are quite inexplicable with our present knowledge. Doctor Ballantyne, in his article in this issue of the magazine, discusses these points, and shows that the secret of success in reducing the early infant mortality lies in the concentration of effort on maintaining the health of the mother who is with child.

It was only yesterday that we learned that the deaths in this dangerous first month are no more necessary than were those from diarrhoea and enteritis which twenty years ago were the outstanding feature in infant mortality. And if we may be permitted to prophesy, in ten years from now the number of deaths from these so-called "congenital cases" will be as greatly reduced as the number of deaths from diarrhoeal diseases has been reduced in the last ten years. The campaign for the saving of life will, however, be a very different one from that already carried on. Efforts must be directed to changing conditions which cause unnecessary loss during the first month of life.

In Boston, and more recently in New York, and wherever prenatal work has been done intelligently and extensively, gratifying results have followed. While the full report of the New York Maternity Center Association, for instance, is not yet available, the figures at hand show a reduction of over one-half in the early infant mortality and in the still birth rate. Prenatal clinics must be established all over the country, just as milk stations and infant welfare centers have been. Mothers everywhere must be taught to look for this type of service which not only saves the lives of babies, but conserves the health, and prevents the deaths of mothers.—Louis I. Dublin, Ph.D.

# American Child Hygiene Association

## Eleventh Annual Meeting

## St. Louis, Mo., October 11-13, 1920

**MONDAY, OCTOBER 11, 11 A. M.**

### Schuyler Memorial House

### OPENING SESSION

Address by the President
Philip Van Ingen, M.D.

Reports of Affiliated Societies.

**2 P. M.**

### PRENATAL AND MATERNAL CARE

(1) The problem of the expectant mother in rural communities, Lottie G. Bigler, M.D., Armour, South Dakota

(2) The unmarried mother before and after confinement, Foster S. Kellogg, M.D., Boston

Discussion to be opened by Miss Rose M. Ehrenfeld, R N., Raleigh, North Carolina.

(3) The nursing wards in maternity hospitals, A. N. Creadick, M.D., New Haven.

**4 P. M.**

### VITAL AND SOCIAL STATISTICS

(1) Effect of infant mortality on the after-lifetime of survivors, F. S. Crum, Ph.D., Newark, N. J.

(2) Infant mortality and preventive work in New Zealand, Robert M. Woodbury, Ph.D., Washington, D. C.

(3) Some mathematical considerations of the problem of infant mortality, Raymond Pearl, Ph D., Baltimore, Md.

**8.30 P. M.**

### General Session, Odeon Theater

Address by

### Mr. Herbert Hoover

**TUESDAY, OCTOBER 12, 9.30 A. M.**

### Schuyler Memorial House

Annual Business Meeting

**10.00 A. M.**

### PRE-SCHOOL AGE

(1) The problems and treatment of early dental defects, Thos. D. McCrum, D.D.S., Kansas City, Mo.

Discussion opened by Joseph S. Wall, M.D, Washington

(2) The mental health of the child, C. Edgerton Carter, M.D, Los Angeles

(3) Standards and methods for health work among children of pre-school age, Robert D. Curtis, M.D., Boston

Discussion opened by Ella Oppenheimer, M.D., Washington, D. C., Worth Ross, M.D., Detroit

**2 P. M.**

### SCHOOL AGE AND ADOLESCENCE

(1) Methods of publicity in health education, Miss Sally Lucas Jean, New York City

(2) Heart disease in school children, Charles Hendee Smith, M.D., New York City

(3) Economy of preventive measures in the nutrition of school children, Miss Lucy H. Gillet, New York City

**4 P. M.**

### Public Library

### ROUND TABLE CONFERENCE

Rural Health Problems, Mrs. Ruth Dodd, R.N., Columbia, S. C., Chairman

**8.30 P. M.**

### ROUND TABLE CONFERENCE

State and city divisions of child hygiene, Anna E. Rude, M.D., Washington, D. C., Chairman

**WEDNESDAY, OCTOBER 13, 9 A. M.**

### ROUND TABLE CONFERENCE

Nursing and social work, Miss Winifred Rand, R.N , Boston, Chairman

### Schuyler Memorial House

**11 A. M.**

Joint Session with Central States Pediatric Society

### INFANT CARE

(1) Prevalence and management of tuberculosis in infancy, Theodore C. Hempelmann, M.D., St. Louis

Discussion by Taliaferro Clark, M.D, U.S. P H.S., and May Michael, M. D., Chicago

(2) How can a public health nurse organize and conduct infant welfare clinics, especially in rural communities? Miss Zoe La Forge, R.N., Washington, D. C.

Discussion by Miss Minnie H. Ahrens, R.N., Chicago, and Lydia DeVilbiss, M.D.

(3) Boarding-out vs. institutional care of infants

Discussion opened by Henry Chapin, M.D., New York; Alfred Hess, M.D., New York; Miss Caroline Crosby, Minneapolis

**1 P. M.**

Closing Business Session.

# Review of Dr. Lane-Claypon's New Book on The Child Welfare Movement

The Child Welfare Movement, Janet E. Lane-Claypon, M.D., D.Sc., Lecturer on Hygiene and Dean of Household and Social Science Department, King's College. University of London. (G. Bell and Sons. London, 1920.)

IT is fortunate that the necessities of her teaching compelled Doctor Lane-Claypon to write this handbook on the Child Welfare Movement. While its original purpose was to act as a guide for those engaged as Health Visitors, it has incidently performed a wonderful service for the American child welfare worker. From it may be gleaned a clear picture of the evolution of the English efforts to reduce infant and maternal mortality and the steps by which the delicate and difficult relationships in this field are being fused. We, in America, may well find here some food for serious thought that will help us to solve similar problems that are now perplexing us.

In reading the book the fact is impressed upon us that the causes leading to organized child welfare work are the same in both countries. It is in the evolution of the movement that we find a contrast particularly marked on the official side. This is due to the fact that the British Government, for a long time past, has given full recognition to the importance of child conservation and has accepted it as a national duty. Of necessity, in our form of government, this step will be slower and will have to be worked out with due regard to the rights and duties of the individual states.

The chapters on the Health Visitor are of peculiar interest. This difficult subject is discussed with clearness and impartiality. The relative value of the various elements of training required to produce this new type of worker are placed with a sureness that can only come from one who has refined her theories through actual experience. The careful detailed instructions to the Health Visitor as to her duties and relationships are excellent. Out of them we can gather some facts for the production of a new type of worker for which the pressure of our health needs is crying.

The whole subject of maternity care is outlined as a part of the problem. The sensible discussion of midwifery has much to commend it. The provisions for the instruction, supervision and control of midwives—even their relations to physicians—are detailed in a way that promises adequate care to the future mothers of England.

The development of Child Welfare Centers under government grant is a striking feature of the movement in England. Begun as well-baby conferences, frequently under volunteer agencies, they are rapidly assuming a wider impor-

tance. Experience demonstrated the great complexity of the work of protecting mothers and infants, and has forced what was, in its origin, a purely preventive movement to take into account curative as well as broad public health agencies. This was one of the important influences which led to the establishment of the Ministry of Health. Under this new arrangement it is hoped that all health activities, public and volunteer, will be successfully co-ordinated.

Space forbids detailed mention of many other excellent features, except to call attention to the clear description of the machinery of the Local Government Board, without which no American reader can understand English health movements.

No person interested in Child Welfare can possibly afford to miss reading this book for its practical value and for the real joy and inspiration of its pages.

WALTER H. BROWN, M.D.

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# MOTHER AND CHILD

## A MAGAZINE CONCERNED WITH THEIR HEALTH

Volume 1 Number 4


DECEMBER 1920

PUBLISHED BY
THE AMERICAN CHILD HYGIENE ASSOCIATION
BALTIMORE

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## A Magazine Concerned With Their Health

Published Every Other Month by
The American Child Hygiene Association
1211 Cathedral Street, Baltimore, Maryland

VOL. I DECEMBER, 1920 No. 4

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Annual dues:

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| Active | $ 5.00 |
| Affiliated (Societies) | 5.00 |
| Contributing | 10.00 |
| Sustaining | 25.00 |
| Life Member | 200.00 |

Membership in the Association includes subscription to the magazine

SUBSCRIPTION PRICE: $2.00 A YEAR; SINGLE NUMBER, 35 CENTS.

Acceptance for mailing at the special rate of postage provided for in Section 1103 of the Act of October 3, 1917, authorized August 5, 1920.

Entered as second-class matter, May 22, 1920, at the Postoffice of Baltimore, Maryland, under Act of Congress of August 24, 1912.

Herbert Hoover

President-Elect of the
American Child Hygiene Association

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If we could grapple with the whole child situation for one generation, our public health, our economic efficiency, the moral character, sanity, and stability of our people would advance three generations in one.

—*Herbert Hoover.*

MOTHER AND CHILD

A Magazine Concerned With Their Health

VOL. I DECEMBER, 1920 No. 4

# A Program For American Children*

HERBERT HOOVER

MY mind is perhaps more filled with the problems of child life than most laymen's. During the past six years I have had the responsibility of directing the organization and administration in special support required by some two million infants and children in Belgium. Through four long years of war famine, since the Armistice, and again, we have ministered to a horde of six million children in Central and Eastern Europe, of whom three million still remain upon our hands. I have thus been brought close to the great tragedies of child life in a great laboratory of mass action.

With this background I wish to preface this discussion of child problems in my own country with what I believe must become a fundamental national principle. That is, the nation, as a whole, has the obligation of such measures toward its children, as a whole, as will yield to them an equal opportunity at their start in life. This responsibility and duty is not based alone upon human aspirations, but it is also based on the necessity to secure physical, mental and moral health, economic and social progress by the nation. Every child delinquent in body, education or character, is a charge upon the community as a whole and a menace to the community itself. The children of strong physique, of sound education and character, are the army with which we must march to progress.

Through the cumulation of efforts during this 150 years of our national life, efforts by a myriad of devoted voluntary agents, with generous state and national action, we have done more for our children than any other nation. Yet few of our communities today can point to all children as one hundred per cent sound in birth, health, education and moral surroundings. Such perfection will probably never be attained, but most communities are la-

* Address at the Annual Meeting of the American Child Hygiene Association, St. Louis, October 11th, 1920.

mentably behind the possibilities of this ideal. During the war, the problems that arose in connection with the mobilization of our great army and with the food supply of our country brought us a fine introspection of our failures, and we must not lose our awakened sense of responsibility.

It is upon some phases of public relations to our deficiency below the ideal that I wish to speak today. Although you are devoted primarily to hygiene, I know that you will agree that all the problems of birth, health, food supply, education, labor and housing are so interwoven that they must march step by step.

If we were to take a broad survey of the children of our nation, we could say at once that probably sixty per cent of them are from the homes of high intelligence and education, that the high character of their parents, with facilities furnished by the State in our public school system, need give us but little anxiety as to this great majority. It is upon the reduction of the remaining forty per cent that our solicitude must concentrate itself. It appears to me that the operation of practical public interest revolves around two center points: First, for infant life prior to the school age, and second, for child life to the age of adolescence. The first case must center in our homes and in the second case must center mostly in the schools.

The first problem, except for the phases of poverty, becomes largely one of education. The most practical step yet evolved has been the creation of the community nurse, with the stimulus thus given to community interest in the problems of child birth and infant care. I see no more reason why our local governments should not support a staff of community nurses than that they should support a staff of policemen. Certainly, such a staff will ultimately decrease the necessity for police.

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There is another service which the organized community owes to infancy and childhood as well—that is the provision and protection of milk supplies. We need insistent recognition of the fact of the interdependence of the human animal upon his cattle. The white race cannot survive without its dairy

products and no child can be developed on short or bad milk supplies. The knowledge of this phase of infant welfare is more backward amongst parents of town and city children than amongst country children, because without much special thought there is available to country children ample milk supplies. There does lie in the country, equally with that of most cities and towns, the fundamental question of pure milk. We have yet to develop public conscience up to the compulsory slaughter of all tubercular cattle. The investigations of the Food Administration during the war showed a woeful lack of appreciation of the need of milk for children generally in the poorer sections of the larger cities. Any study of the nutritional problem for children in the city quickly divides itself into malnutrition due to poverty and that due to ignorance on the part of parents. Fortunately, in the American cities the portion due to poverty is not large, but to the infants of this section there must be assured fundamental nutrition, out of protection to the community as a whole.

After children have arrived at school age, we have opportunity to correct malnutrition due to ignorance or misfortune by providing at least one meal a day in the schools of those sections that need it. This again has a warrant not in charity but in insurance to the whole community against the deficiencies in health and mind of our population in the years to come. I believe that the definite institution of supplementary child feeding in public schools in certain places is a necessary part of municipal endeavor. Coupled also with this, I am a firm believer in clinical examination and reports to parents as a definite part of school work.

**I believe that the definite institution of supplementary child feeding in public schools in certain places is a necessary part of municipal endeavor. Coupled also with this, I am a firm believer in clinical examination and reports to parents as a definite part of school work.**

That part of malnutrition due to ignorance on the part of parents would in time find ultimate solution if all our schools elaborated their curricula, on the hygiene side, up to standards set in a few localities, for at least we would catch up with the next generation. We indeed need more widely extended teaching of the fundamentals of nutrition in the public schools, not only as a part of the advance in public health but also in household economics.

Some may object that this extension of medical supervision by community nurses, clinical inspection of children in the schools, a supplemental meal in schools of certain sections, all tend to an ex-

tension of too intimate government. In the very creation of free schools and compulsory education itself we have accepted the fact that we cannot as a nation rely for the upbuilding of the race upon the initiative of the parents alone. No one can deny that the physical development of child life is of equal importance with education. We, every one of us, pay the price in our jails, in our poorhouses, in our hospitals, in the loss of our economic efficiency, the fertile ground that we furnish for all the social patent medicines, for our failure to have grasped the entire problem of child development, not only intellectual but physical as well.

We have also some deficiencies in our school system itself. In this, some parts of our nation have made such wonderful advances and yet so much remains to be done! I am one of those who believe that education must be compulsory in the interest of the nation as a whole, and I believe that the period of compulsion should extend to fifteen or sixteen years of age. Two states, as yet, have no compulsion, and in some, compulsion is really ineffective, by short terms, shocking facilities, etc. The war has greatly disturbed the efficiency of our public schools, even in the best communities, for the payment of our teachers has not kept pace with the rise in economic levels. At one time we were short nearly 100,000 teachers. Furthermore, building operations have fallen behind the growth in the number of our school children and, in many cities, the children are woefully overcrowded. There has, during the last few months, been a great deal of attention given to these problems, and one can state with great satisfaction that progress is being made to correct these evils in many places.

There is also linked to this whole problem of education and welfare of children, the problem of child labor. The Federal Government has already recognized the unsoundness in the economic use of the nation's resources in permitting the entrance of young children into industry. Such a practice results

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in the progressive degeneration of the race, and tends to impair the human resources of the country on which the coming generation must rely. The matter cannot wisely be left to the sole initiative of the separate States, for we have proved with great bitterness that it is not only unfair to the States which have attempted to deal with the problem but it places a premium upon States which are willing to subordinate the future well-being of their children to a present questionable competitive advantage in industry.

In considering the problems of child labor, a differentiation must be made between the various employments in which children enter. The entrance of children of tender years into mills, factories and mines, tends to stunt their development and to injure the race. The argument that the child is enabled to learn a trade is unsound for the trade may be more quickly learned, with greater opportunity for subsequent progress by a boy of better physical condition of sixteen years, who has spent ten years in elementary schools, than by a boy who loses the opportunity of intellectual and sound physical development by entering into such labor at ten or twelve. On the other hand, the intermittent employment of children in agriculture may, if wisely supervised, develop physique and form a fine supplement for the more formal education in the country schools.

Up to the present the Federal Government has not been able to deal comprehensively with the subject of child labor. The original Child Labor Law was declared unconstitutional. The present Federal Child Labor Tax Law imposes a tax of 10 per cent upon the net profits of any factory, mine or quarry entering upon interstate commerce and at the same time employing children under fourteen to sixteen years of age. The Federal Government is incapable of making provision against employment in intrastate industry and thus the great mass of children employed in street trades and various blind alley occupations goes on unhindered. It appears to me absolutely critical that we should have such Constitutional amendment as permits the Federal Government to take direct action on this question, for so long as certain States are so backward in their social development that they will sacrifice their children to industrial advantage it is not only unfair to the other States but it is poisoning the springs of the nation at their source. And in the spread of this infected population throughout the whole area, every State, no matter how highly developed its social organization, must bear the burden of shiftless poverty, and criminality, that spreads from such areas.

Prohibition of child labor is at best only a negative attack on the problem. It is not thoroughly effective in promoting the economic and moral welfare of the nation, unless the time now spent by the

child in industry is devoted to adequate schooling and to activity that will develop his physical well being. Nothing can be worse than compulsory idleness of children, and therefore, the period of compulsory elementary education and the period of prohibition of child labor must be complementary. We must not only protect our children from the physical degeneration of child labor but we must enable them by education to take their place in society and give them that equality of opportunity at their first step in life that should mark the particular distinction of our democracy. Some States have prohibition of any child labor that is socially and physically objectionable. Many States still fail to dovetail compulsory school laws and child labor laws so as to protect children from unsuitable work and the nation from illiteracy. Illiteracy rises in some States as high as 20 per cent of the whole population over ten years of age. The ideal would be for each State to take separate action to attain these uniform ends, but, as I despair of the social development of certain States, I have myself come to the conclusion that we must have direct or indirect Federal action in order to compel those who have so little sentiment in national interest that they would debauch our child life for the mere purpose of favor to certain industrial establishments.

I am one of those who hope much for these problems from the enfranchisement of women. The major part of progress to date has been due to the insistence of our women. But for the future political parties will need to advance these issues to the forefront if they would secure the adherence of the women. A demand from the women would find no hesitation in the alacrity of our political leaders.

If we could grapple with the whole child situation for one generation, our public health, our economic efficiency, the moral character, sanity, and stability of our people would advance three generations in one. These complex problems cannot be solved by any iron-clad system of governmental action. When all public interest has expended itself, child developments still rest with parents, and parents need much bringing up. Much can be done by the waking of public conscience in every community. Much still remains to be carried out by action from the State in its local as well as national phases. All these points of attack require the day to day, disinterested, voluntary devotion of such associations as yours.

# The Eleventh Annual Meeting of the American Child Hygiene Association

St Louis, Missouri, October 11-13, 1920

PRESIDENTIAL ADDRESS

## One Year's Work a Challenge For Next Year

Philip Van Ingen, M. D.

IT is my privilege to welcome the members of the American Child Hygiene Association and those others who are not members, but ought to be, to our Eleventh Annual Meeting. In opening this meeting, it is well for me to report to you some of the things that have been accomplished during the year as well as some of the things that we have been unable to do. In many of them, I think we can feel —not pride, for "pride goeth before a fall"—but encouragement. It has been the most active, most exacting year in our history.

It has interested me very much recently to read over the addresses which have been made by previous Presidents. In different ways and in different degrees, each has called attention to the increased work being done throughout the country and by ourselves. In each one of them, there has been a note of disappointment at our lack of progress as an organization in accomplishing the work for which we exist. They have made suggestions for further increased activity on our part. We have listened to these addresses, have been much impressed, and have made up our minds that we must enlarge our work, but we have always been faced with the difficulty of raising funds.

Only once in our first ten years of existence have we had an income of $10,000. In 1910, at the time of our first meeting, we had 503 members. In 1919, we had only 938.

### A PROPHESY—AND FULFILLMENT?

Last year, in her presidential address, Doctor Baker said: "The time has come when it (our Association) must either go forward with rapid strides and meet the great opportunity and need that confronts it, or it will cease to be a force of any practical importance in helping solve the great problem of our future generation." At the 1916 meeting, this situation was appreciated and plans were under way for a vigorous campaign, which in fact was started, but our entrance into the Great War put an end to it all. In spite of that, it was, however, our best year, with over 1,100 members and an income of over $10,000.

That plan was not forgotten and

Doctor Baker told us how we ought to begin with many additions and improvements to the original plan. She told us that we ought to have not less than 50,000 active members and that we would need $50,000 for our first year's work. What have we done in carrying out this program? First of all, what about the sinews of war? Up to the end of our fiscal year, September 30, of that $50,000 she bade us set out to get, we have taken in $41,804. The American Red Cross, realizing the value of the work we are doing, and in an effort to give us a start, granted us $20,000, and another grant of $10,000 was made by the Commonwealth Fund, on condition that we raise the remaining $20,000 of our budget. They generously paid us, some weeks ago, $7,500 of this grant, corresponding to the proportion of our share which we had raised. That means that outside of these two large contributions, we have raised $14,304, approximately $4,000 more than ever before and nearly $5,000 more than we raised last year. We are still $5,000 short of our goal.

### A CAMPAIGN FOR MEMBERS

What of our membership? Our campaign was very much delayed in getting under way for many reasons, most of which were unavoidable. Dr. Howard Carpenter, as Chairman of the Membership Committee, has worked untiringly in organizing state committees for this purpose and we now have chairmen in nineteen States and the District of Columbia. Up to September 30, our membership had increased from 938 in 1919 to 1,698. That is very far short of the 50,000, although it is an advance. The American Public Health Association in one year increased their membership 160 per cent. We increased ours 81 per cent. The National Tuberculosis Association has today a membership of 4,066. Is there any reason why we should have only 1,698? Is our cause less worthy of support, less appealing?

You are all more or less familiar with the reorganization and great increase of our Executive Staff. We now have a General Director, an Assistant General Director and Executive Secretary, a Field Director, and a Director of Publicity. Their activities have been too numerous for me even to attempt to summarize. They are all presented to you in printed form. Our magazine is now appearing and we have received many flattering letters about it. Doctor Foote, Chairman of the Editorial Board, has given generously of his much occupied time, editorially and in the difficult work of organization. The Association owes much to Doctor Foote.

It would be unjust and ungrateful for me to leave that subject without a word of appreciation and gratitude to the entire staff for their unselfish devotion to their work. Without making any invidious comparisons, our especial thanks are due to Miss Knipp and

her immediate assistants who, throughout the year, including the hot summer weather—and especially during that latter time—have handled an overwhelming and ever increasing mass of detail, which would have discouraged any less determined and less devoted group.

### THE PARTING OF THE WAYS

What is to be our future as an Association? For the first time, really, we have come to the parting of the ways. Up till this year, there was but one way before us, our work being that which could be done almost entirely by correspondence and through our Annual Meetings. We may feel, in spite of what I said before, some pride in what we have done in this limited way. But now, we have had one year of experience in the other broader, bigger field, in which personal contact and field work play the important part. It is still possible, I suppose, to go back to our former program and, unless every member of this Association is willing to give more time, thought, and service to furthering the comprehensive plan for child welfare, we shall be obliged to curtail our activities. We have no reason to expect the same large special contributions that we received last year. It is up to us to provide funds. We have nearly 1,700 members, scattered through, I think, every State in the Union. We need the help and assistance of every one of them. Just think what it would mean, if each member made herself and himself personally responsible for obtaining ten new members! That would mean 17,000 new members and an income of $85,000. Does that seem extravagant? Do you think we do not need that much money to do our work? Mr. Homer Folks, as President of this Association, said to us in Philadelphia, "To do the work I have outlined, this Association would need only the trifling sum of, say, $100,000 a year for the first few years. We might need more later." If we are to progress, if we are to accomplish what we all know ought to be accomplished in this country, we must have the personnel and the money to do it. This must be everybody's Association and everybody must be willing to do something—all they can.

### CO-OPERATION THE KEYNOTE

We need more organized effort and co-operation among our members in their various States. It has often been suggested and discussed in the meetings of the Directors and of the Executive Committee whether we should not try to organize State branches. Independent State branches lead to confusion, to lack of harmony, in any nation-wide campaign. I hope that this coming year we will organize, everywhere, State Committees of the Association. These committees should have for their program, concentrated action in their own States for carrying out the program which

Doctor Baker last year outlined in her ten points. There should never be any question of the justice of those ten points. They should have the services of our staff; financial assistance should be granted according to our means, and on approval of their plans by the Executive Committee, or by some special committee if such be deemed necessary. These committees should be organized by our local Directors and members and contain in their membership, representatives of all organizations doing child welfare work in their State, in order to bring about the co-operation without which failure is inevitable. What is of more importance, is that these committees should include a large number of the laity and a certain number of physicians. Without the interest and, therefore, the assistance of the laity, we can hope for very little.

### THE NEED FOR INFORMATION

One of the great handicaps under which we work is our lack of knowledge of what is being done the country over. The Federal Children's Bureau, with their Quarterly News Letter to Directors of Divisions of Child Hygiene, which is the result of the Round Table Conference held at our meeting in Asheville, and their Weekly News Summary, have made a big step in trying to make this information available. Through our magazine, we are trying to give this information to workers in all branches, and to the public who are interested—or ought to be. Such information is hard to get. We want the Affiliated Societies to keep us informed as to any matters of importance, whether it be new work, successes or difficulties.

That, however, will not be enough. This Association ought to have a corresponding secretary for each State in the Union, who would keep our Central Office informed of every bit of child welfare news that she could obtain. She ought to have county and city correspondents. The office in Baltimore writes thousands of letters, asking for information. Sometimes we get it, sometimes we do not. Without such sources of information, we shall always be ignorant of many things we ought to know. It keeps us from getting in touch with many activities, which can help us and which we can help.

The Nominating Committee this year have a very great responsibility. They will present names to the Association for election to the Board of Directors, and to the Directors fo relection as Officers, and to the Executive Committee. The success of our work depends upon our Directors and still more upon their Executive Committee. Doctor Hamill, in his address at Milwaukee, stated, concerning any organization, "It should be the prerequisite of every director or manager that he be sincerely interested in the problems of the organization and willing to give time, thought and serv-

ice to the cause for which it is working." More or less permanence in the Executive Committee is essential. A change in policy and methods each year would be fatal. In previous years this Committee has met twice between annual meetings. This year it has held five full meetings and, in addition, a great many matters have been decided through correspondence. It must be evident that this Committee which is responsible for carrying out the policy of the Association must be available for frequent meetings. There is even greater need of such a committee this year than there was last, because there are matters of the very greatest importance to the success of our cause, which must be worked out at frequent meetings. The extent of our activity depends on our financial status. We must not get ahead of our income and we must decide from month to month how to proceed.

There are constantly coming before this Association requests from individuals and organizations for standards and programs of work, for advice as to what to do next. There should be a committee, or committees, permanent or for special purposes, representing the various branches of work in our field, which should be given authority to develop such programs and to prepare such standards and publish them in the name of the Association without waiting for our Annual Meeting to have them formally approved by the Directors. Our general principles of work are well established now and it is only in minor details where there can be much, if any, difference of opinion. We ought to be willing to back any such program or such standards, prepared by our own committee, even though we may not all of us agree in every minute detail. It is results we are after.

One of the things that such a committee should take under consideration at once, is a definite plan and program for work for the child of pre-school age. A paper is to be presented at one of our meetings on this subject, and the best thought and experience that we can assemble should be put to work in devising a definite program and standards.

### A MOVEMENT FOR EFFICIENCY

One of the first things that our new Director did in assuming his duties was to make an investigation of the national organizations carrying on some phase of child welfare, and a digest of their programs has been prepared for future reference. Sixty-four national organizations are in some way, and in varying degrees, interested in the problem of child welfare. Sixty-four! The criticism that is made by business men, when appealed to for funds, and I speak from bitter experience, is that there is no end to these organizations, that there is a tremendous duplication of effort and yet, in spite of it all, we ourselves admit that there are gaps

which need to be filled. As long ago as 1912, Doctor Wilbur, in his presidential address, said, "I believe that for the satisfactory determination of many of these questions, we should seek closer affiliation and union with all organizations devoted wholly or in part to work of a similar character." The Chairman of the Central Committee of the American Red Cross, in announcing the appropriation of $20,000, stated that it was made with the understanding that every effort was to be made to bring about a closer co-operation among existing national organizations. There are two distinct forms of work to be done in our wide field of child welfare: First, the study and developments of methods and standards of work and, second, propaganda work—spreading the gospel throughout the country. Our Association is committeed to a program for the health of the child from conception through adolescence. I stand for that program. It is, in my opinion, nonsense for us to talk about a well-rounded program if we do not take in the whole period. But this does not mean that it is necessary for us to devote our energies to working out the standards and methods to meet the problems of all the various age groups, many of which are complex problems all by themselves. Mr. Folks' $100,000 would be but a drop in the bucket. We should be willing and anxious to accept good methods proposed and tried by other organizations and preach them as part of the general program. It is only by a knowledge of the work of other organizations on our part and their knowledge of our work that we can pull together and save our energies. We are an army—an army of construction. The lessons learned in destructive warfare can well be applied to constructive warfare. for too many months and years we know how unsatisfactory and inconclusive were the results of brilliant individual efforts on the part of separate units in the War. We know that nothing was so essential as a complete knowledge of what each army, each nation, was planning and was doing. We also know that it was only when there was a unity of action by all that success came and came quickly. It is only by unity of action, complete co-operation, which must be based upon complete knowledge of each others plans, that our constructive warfare will end in success.

### THE CO-ORDINATING COUNCIL

It was for this reason that the American Red Cross, through the Chairman of the Central Committee, at the request of several persons, of whom I was one, called a conference of representatives of four organizations interested in child welfare work; our own organization, with a field covering from conception through adolescence—a field which we cannot at present thoroughly cover; the Child Health Organization, confining its activi-

ties to the school child, and up to the present time limiting its work to only a part of the problems of that period; the Child Labor Committee, who are entering upon a broader field by interesting themselves in the problem of the health of the child entering industry; and the National Organization for Public Health Nursing, that branch of work so utterly essential in our campaign and which touches in various ways all age periods. At the first conference, it was suggested that it would be possible, by bringing together a limited number of organizations, whose combined programs would, or should, cover the entire field, to bring about a real method of co-operation by co-ordinating their activities—that it would also, in this way, be possible to eliminate much wasted effort and reduplication, if each organization would take advantage of the experience and work of the others. Several conferences were held and the Red Cross was asked to enter the conference on account of their many activities along child health lines. It was finally decided to form a Council for Co-ordinating Child Health Activities, whose main object will be:

"1. To define and develop so clearly their own work that each organization will be in harmony and co-operation with the others.

"2. To develop new methods which will lead to meeting more effectively some of the special problems still unsolved.

"3. To afford an opportunity for any organization dealing with the health of children to submit it's plan and program for suggestions."

This is not the first effort that has been made along these lines. For several years there has been a council composed of representatives of nearly all national organizations, but owing to its unwieldiness, practically nothing has resulted. It was for this reason that this Council has been started with so few organizations originally included. As soon as a definite plan is worked out and as soon as a real start is made, others will be asked to join and their program will be made to fit in with the general plan. It is not the intention of those composing this Council to start a new organization with a large staff and ponderous budget. The object is more that it shall act as a sort of cabinet where the different organizations will discuss their plans together. The identity and independence of each will be maintained. There is no intention of urging a consolidation of all these organizations. Competition among individuals is one of the strongest motives for success. Competition among organizations in such an arrangement will mean that each will try to make its program better and more effective than the next organization's.

### THE ULTIMATE RESPONSIBILITY

All that has been done so far along these lines has had the ear-

nest consideration and approval of our Executive Committee. If the American Child Hygiene Association can play a big part in bringing about real co-operation and co-ordination among the many already existing agencies, it will not have lived in vain, if it has nothing else to it's credit.

Members of the Association, the year ahead of us is big with possibilities—possibilities of success, possibilities of failure. The responsibility for the outcome, whether it shall be good, or whether it shall be bad, lies upon each and every member of the Association. The question is, have you faith in our program? If you have faith, what are you willing to do? Faith without works is dead. The success of our work, with its almost boundless opportunities cannot alone be secured by the tireless, ceaseless efforts of our Executive Staff and a few of our members. It is up to us to decide the result. Will all of us, every one of us, pledge ourselves to help to the limit of our ability? If so, we will have crossed the Rubicon—we are on its banks now.

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## Notes on the Papers and the Exhibits

THE Federal Government and certain state and city governments indicated their sense of responsibility for the health of mothers and children by sending a large representation to the Eleventh Annual Meeting of the American Child Hygiene Association. This meeting was held in St. Louis from the 11th to the 13th of October. Nearly four hundred people registered, representing England, Canada, thirty-three states and the District of Columbia. The chiefs of the Divisions of Child Welfare from eighteen State and ten City Boards of Health were present. The Association was especially honored by the presence of Dr. Janet Campbell and Doctor Lambert, one of her assistants in the Division of Child Welfare in the Ministry of Health of England and Wales.

The President's address, which is given in this issue, gave a rapid survey of the work of the Association in the past, and pointed the way to its future success.

The Section on Pre-natal and Maternal Care opened with a paper by Dr. Lottie G. Bigler, of Armour, South Dakota, making an appeal in behalf of the neglected expectant mothers far from the beaten track, urging that adequate medical supervision and nursing care be provided for them.

Dr. Foster Kellogg, of Boston, sent a paper on The Unmarried Mother before and after Confinement. He holds that it is essential that these mothers be discharged after delivery in such good physi-

Anna M. Upjohn Copy., A. R. C.

**Wash your hands before you eat. Dirt carries disease.**

cal condition that they may be able to earn an honest living. The relative merit of caring for these mothers in maternity homes, versus the method of boarding them out in carefully investigated private homes; and the advantages of having a state Board of Illegitimacy with its various legal, sociological and medical departments, were also dwelt upon.

Division of responsibility between the obstetrician and the pediatrician in Maternity Hospitals was presented in a paper by Dr. A. N. Creadick, Associate Professor of Obstetrics and Gynecology in the Yale Medical School. A live-


Anna M. Upjohn Copy., A. R. C.

He sleeps with open mouth because a growth in the back of his throat obstructs the passage of air through his nose.

This same growth obstructs the passage from the throat to the ear and causes inflammation in the ear.

If this growth is not removed he may be totally deaf or backward.

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ly discussion followed, opened by Dr. William Palmer Lucas, of the University of California. While there was no unanimity of thought on the subject, the prevailing idea of those discussing the subject was that the earlier the pediatrician assumed the care of the baby, the better.

Among the papers prepared for the Section on Vital and Social Statistics, was one by Frederick S. Crum on the Effect of Infant Mortality on the After-life-time of Survivors. He said: "These Holland data are undoubtedly the best available in the world for the purpose of determining whether or not there is a positive or inverse correlation between infant mortality, and the mortality in the immediately subsequent years of life. These data seem to prove that at least in the rural districts, a definite inverse correlation exists."

Robert M. Woodbury, Statistician of the Children's Bureau, discussed New Zealand's infant mortality and the methods there used which brought it down from over 100 in 1875 to 48.4 in 1918, the lowest of any country in the world.

The address of welcome at the evening session of the first day was given by the Mayor, Hon. Henry Kiel, to which Doctor Van Ingen responded.

Mr. Herbert Hoover followed with an address on "A Program for American Children," given in full in this issue of MOTHER AND CHILD.

The Child Health Organization of America then gave a demonstration of a new method of teaching health to little children. The stage was set in Fairyland, and the Health Fairy, Miss Anne Raymond, flitted out of her house, waved her wand, and won an en-

Anna M. Upjohn Copy., A. M. C.

**"FOOD FOR CHILDREN"**

"Little children must never have sausage or other highly seasoned food, unripe fruits, uncooked vegetables, coffee or alcoholic drinks.

"No, no, my little ones, you are too young! It will make you sick. Such food is for papa and mamma."

thusiastic response from the group of boys and girls seated on the stage, to whom she told her tale. The grownups in the audience repeatedly burst forth into applause, forgetting that the Fairy was talking to the children and not to them.

The program of the second morning was devoted to Children of the Pre-school Age. Dr. J. F. Austin, of St. Louis, read a paper on Early Dental Defects, illustrated with lantern slides, showing the serious results of neglecting little children's teeth.

Dr. Carter, of Los Angeles, sent a paper, the Mental Health of the Child; some Physical Determinants, and a Method of Observation. He suggested health status charts as being one method of obtaining data for preventive work.

Standards and Methods for Health Work among Children of

Pre-school Age were given in detail by Dr. Robert D. Curtis, of Boston. He enumerated the commonest physical defects encountered indicating the type of clinic needed to correct each, and discussed methods of securing and maintaining good attendance in the clinics, the expense of supervision, and various other matters concerned in the management of child welfare stations ministering to children of pre-school age. This paper, full of practical concrete suggestions, was discussed by Dr. Worth Ross, of Detroit.

Mrs. Miller, of the St. Louis Anti-tuberculosis Society, brought forward a group of children who opened the Section devoted to School Age and Adolescence with a most interesting Health Crusade play.

Miss Sally Lucas Jean, of the Child Health Organization, read a paper on Methods of Publicity in Health Education. Miss Jean said: "America is ready for health education; we must have expert assistance in getting across the facts we know so well."

Heart Disease in School Children was the subject of a paper by Dr. Charles Hendee Smith, based on his experience as Director of the Huddleston Memorial Class for Cardiac Children in Bellevue Hospital, New York. His paper will soon appear in this magazine.

Miss Lucy Gillett read a paper on Economy of Preventive Measures in the Nutrition of School Children. Miss Gillett said: "No time, effort or money should now be spared in preventing our future citizens from becoming only 75 per cent efficient. No price is too great to pay for healthy children."

On the last day a joint session with the Central States Pedriatic Society was held.

Dr. Theodore C. Hempelmann, of St. Louis, read the first paper, on the Prevalence and Management of Tuberculosis in Infancy. He commented on the fact that "The younger the child the feebler is his resistance to the infection and the more apt he is to develop symptoms of active tuberculosis," and discussed the prophylaxis necessary to protect infants from infection. He outlined the treatment wherein lies the chief hope of the infant, once infection has taken place.

Miss Zoe LaForge, R.N., of the Federal Children's Bureau, discussed the Principles of Successful Organization of Rural Infant Welfare Clinics under a Public Health Nurse.

### THE EXHIBITS

The Public Library was a fine place in which to display the various exhibits sent to show in graphic form the work of each society affiliated with the American Child Hygiene Association. So much interest in these outline sketches was taken that it was decided to have the charts photographed for further study and reference.

One exhibit differed from all the

others in character. This was a series of thirteen large picture-posters owned by the American Child Hygiene Association. These posters are photographs of the originals used in France by the American Red Cross to teach the mothers some of the essential laws of health. The originals are now on exhibit in the Red Cross headquarters in Washington. The artist, Miss Anna Milo Upjohn, a well-known portrait painter, brought to this work from her two years' volunteer work among the French refugees vast sympathy and understanding. Three of these posters are here reproduced by permission of the Red Cross. The St. Louis Meeting gave evidence in every respect of the increased of our organization.

## Affiliated Societies Report

*Detailed reports of the Affiliated Societies and of each of the Round Table Conferences will appear in the forthcoming Transactions of the Association.*

MANY new ideas were presented in the reports of the Affiliated Societies. Whether given verbally or transmitted by letter all were indicative of growth. All were characterized by enthusiasm and optimism for the future.

Miss Place reported that the Infant Welfare Society of Chicago is now conducting three pre-natal clinics each week; twenty-four stations in which semi-weekly conferences are held for children under two years of age; and nine weekly clinics in which special attention is paid to the nutritional needs of children of pre-school age. This society supervises the children placed in boarding-homes by the Illinois Home and Aid Society.

The Minneapolis Infant Welfare Society has concentrated on the encouragement of breast feeding. It aims to give to every Minneapolis baby the "six times greater chance" which the breast-fed infant has over the bottle baby. Its work includes the supervision of expectant mothers throughout pregnancy, and obstetrical care, as well as the care of the family during the mother's confinement.

A feature of the work of the St. Paul Baby Welfare Association brought out by Mrs. Lettice, was brought out by Mrs. Lettice, was the supervision of boarded-out babies. This has been accomplished by co-operation with the Children's Bureau of the State Board of Control, through which all boarding-homes must be licensed.

According to Miss Rand the Boston Baby Hygiene Association is fast outgrowing its "baby" name and becoming a "child" hygiene association, as children of pre-school age are included among those administered to in six of its twenty stations. These stations are also used by Simmons College; by Harvard Medical School in con-

nection with the postgraduate course in Pediatrics; and by the Instructive District Nurse Association in their courses for public health nurses.

Doctor Gerstenberger told of the opportunity being offered for postgraduate work in pediatrics in connection with the Babies' Hospital and Dispensary of Cleveland. Training courses for public health nurses are given there through the cooperation of the Western Reserve University, and the University District Training Center. An automoblie dispensary was used during the summer months to reach children in outlying districts.

A point made in the report of the Cleveland Day Nursery and Free Kindergarten Association, was the systematic weighing of children at regular intervals. The children from one to two years of age are weighed twice a month, the older ones once a month, except in cases of malnutrition.

From Miss Gilbert's report it was learned that twenty-four per cent of the babies born in New Haven in 1919; were cared for by the Visiting Nurse Association of New Haven. They also have had a large number of the children of preschool age under their supervision, and are doing generalized nursing work in the health center organized in New Haven in July, 1920, under the combined auspices of the Department of Health, the Visiting Nurse Association, the New Haven Medical Association, and the American Red Cross. This center urges the medical examination of people of all ages, "whether sick or well, rich or poor."

The New York Diet Kitchen Association is now trying to conserve the health of entire families. Their new work was the establishment of a consultation bureau for parents, and an expansion of their work for the pre-school child by the addition to their staff of a nutrition teacher.

The varied activities of the New York County Chapter Health Service Division of the Red Cross, as related by Mr. Bedinger, include the maintenance of an extensive library of educational health literature, much of which they themselves have printed. They have prepared mailing lists and will address material dealing with health to be sent out to the various agencies. They are training volunteers for public health work.

The Providence Child Welfare Committee is made up of delegates from all societies conducting Baby Welfare Stations or carrying on any form of child welfare work. Miss Hall, speaking for this committee, said that it stands ready to aid, in any way it feels is best, any projects for the welfare of children in that city.

An "On Shore" research hospital for the clinical and scientific treatment of the nutritional disturbances of childhood is being conducted by the Boston Floating Hospital in addition to its usual work among sick children. A special two months' course for nurses is offered.

# Round Table Conference

AFTER a very full and active general program lasting all day Tuesday, the Round Table Conferences began their sessions. The conference of Divisions of Child Hygiene assembled at eight o'clock, worked well into the night and then, an unheard of procedure heretofore, assembled at 8 o'clock the following morning to finish their discussions.

Directors of the Divisions of Child Hygiene were present from eighteen States and the Provincial Board of Health of Ontario, and from ten Municipal Departments of Health in the United States and Canada. Representatives from four other State Divisions were also there. Dr. Janet Campbell, Senior Medical Officer of the Division of Maternity and Child Welfare, under the English Ministry of Health, and Dr. Helen McMurchy, Director of Child Welfare Division of the Canadian Ministry of Health, were present and spoke.

Organization charts of a number of Child Hygiene Divisions, both municipal and state, were on display in the meeting room.

Among the topics discussed were: the methods of reaching expectant mothers; the establishment of pre-natal clinics; how to promote rural health work through health centers; health education of rural school children; the organization and management of well-baby consultation centers in small towns.

Miss Rand presided at the Round Table on Nursing and Social Work where perhaps the most important single discussion was of the most effective way for recruiting student nurses. Formal resolutions relating to this subject were presented by this section and approved by the Association which now stands pledged to indorse the plan presented by the National Nursing Association and the American Red Cross, giving all possible assistance in the Campaign for Recruiting Student Nurses.

Dr. James A. Haynes, Secretary of the State Board of Health of South Carolina, presided over the Conference on Rural Health Problems. Dr. Frances Sage Bradley, of the Federal Children's Bureau, told of blazing the trail for health education and medical supervision by means of the Child Welfare Special* which is working in the rural districts of some of the Southern States.

Mrs. Ethel Parsons, of Austin, Texas, Chief of the Division of Child Hygiene and Public Health Nursing of the Texas State Board of Health, made many helpful suggestions as to what to do and how to do it, in rural health work.

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*For an account of this auto-truck see "Mother and Child," vol. I, no. 1, p. 27.

# MOTHER AND CHILD

## A Magazine Concerned With Their Health

Published every other month by
THE AMERICAN CHILD HYGIENE ASSOCIATION
1211 Cathedral Street
Baltimore, Maryland




**DECEMBER, 1920**

### The Eleventh Annual Meeting

THE keynote of the 1920 meeting was constructive optimism. From the first paragraph of Dr. Philip Van Ingen's presidential address to the last word of Mr. Hoover's incisive speech at the general meeting, the members seemed inspired less by the record of splendid achievement in the year just closed, than by the almost limitless possibilities for extension of membership and influence in the next twelve months. "If we could grapple with the whole child situation for one generation, our public health, our economic efficiency, the moral character, sanity, and stability of our people would advance three generations in one," said Mr. Hoover. Here was an inspiring text! The faith of men who have done great things is contagious. No member heard these words who did not go out with a determination to give "that day to day disinterested, voluntary devotion" which Mr. Hoover said was characteristic of such organizations as ours—the very kind of individual service for which Doctor Van Ingen appealed at the morning session. Something of the rushing virility of the great metropolis of the Southwest where we met, seemed to have communicated itself to the meetings, the conferences, even to the views of the individual members. And this was more than mere organization pride,—it was an intangible presence, an aura, a feeling in the air that our years of achievement are at hand, and that we are on the threshold of great events.

The announcement on Wednesday that Mr. Herbert Hoover had been proffered and had accepted the presidency of the Association for 1921 was an early justification for this undercurrent of widespread optimism. It was universally felt that no greater compliment could be paid the work of our organization than was implied in the acceptance of its leadership by Mr. Hoover.

The Incoming President, Doctor Shaw, brings to the Association an intimate knowledge of its needs, and a proven executive capacity, especially in the New York State Department of Health. Added to this, is his reputation as a periatrist and a writer on the diseases of children and an unusual degree of personal popularity. The President-elect, Mr. Herbert Hoover, is one of the few living men who can con-

fer honor, rather than be honored, in assuming the leadership of the American Child Hygiene Association in 1921.

The Past President, Doctor Van Ingen, will still give his time and knowledge and enthusiasm to the many problems confronting the Executive Committee. In order that a different group of Directors may become thoroughly familiar with the details of our work through closer contact, the Executive Committee was reorganized. Two veterans retired who had served continuously through many years, Dr. J. H. Mason Knox, the first President of the Association, and Dr. S. Josephine Baker, who occupied the chair last year. No one can even glance through the Transactions of past years without receiving an approximate idea of the tremendous influence exerted by these two Past Presidents in the upbuilding of the Association. And none of the older members need a printed reminder to stimulate their gratitude for such untiring and unselfish service as these retiring executives have always given.

The city of St. Louis welcomed us in a way that left no doubt as to the sincerity of its greeting. The local committee, and especially its chairman, Dr. Borden Veeder, well deserved the enthusiastic resolution of thanks which the meeting voted. The press was unusually generous in giving space to the proceedings of each day, and no previous annual convention was ever chronicled so fully and so accurately as was the St. Louis meeting.

If the public meetings are the "window display" of our organization, the Round Table Conferences are glimpses of the workshop and laboratory. The informality of these meetings brings out practical points that are frequently lost in formal discussions from the floor.

The Affiliated Societies showed in their reports a steady, healthful growth. More about deeds and less about intentions marked the difference between these reports and those of former years.

If the spirit of those who attended the meeting does not wane, we shall have twenty thousand members who realize that in becoming members of the Association they are making its work more effective. Each of these twenty thousand members will have MOTHER AND CHILD, which is the one magazine published in this country giving to the multitude of workers and others interested in child welfare the information necessary for a better understanding of the problems we are trying to meet. To secure this splendid membership let each old member bring in one new member each month. Optimism plus individual effort will bring us to our goal. The task is an easy one. The expense of membership is almost negligible. One and a half cents a day for child-health insurance! That is what it amounts to. Twenty thousand members in 1921 must welcome Mr. Hoover as our President.


Courtesy of the Child Health Organization of America.

**Cho-Cho, with a group of Modern Health Crusaders.**

# Health in the School

Presented by the Child Health Organization of America

BY the most direct and simple and cheerful method imaginable child health in America is receiving a big new impetus. No longer do children in elementary schools pore stolidly over formal lessons in physiology and hygiene with vague interest. They are taught instead to achieve health day by day through practicing real health habits, and the new knowledge comes to them in the most delightful forms. They literally play their way to health.

This is an exacting game, of course, with lots of competition and some inflexible rules. But the result of playing the game is real health, from the point of view of the scientific educator, or doctor, and real pleasure and happiness from the point of view of the child.

Parents too, are receiving much enlightenment as to the reason why their children are sometimes cross, or frequently underweight, and are learning that these faults are sometimes not due to any peculiarity other than a remediable physical defect, or an improper diet.

The child's defects are not slurred over in this method of teaching health, but are thoroughly gone into first. But the greatest stress is put on the fact that any child can make a gain, once serious defects are properly remedied, by just keeping close to the rules of the health game, and then playing fair.

### CO-OPERATING ORGANIZATIONS

Many organizations are co-operating in the child health movement and all are doing valuable work. There is the Health Crusade—for instance, the Health Crusaders of the National Tuberculosis Association, and the Junior Health Crusade of the American Red Cross. These have done much to appeal to the older children and to unite home and school in a drive for open windows, tooth brushes, water inside and out, long hours of sleep and other minimum health habit requirements. There is both group appeal and individual checking up in the method of these two organizations.

Thirty-three thousand children in Kansas City received the reward of the "Squire's button" for fifteen weeks performance of the minimum required health chores: and in spite of the backsliding when buttons, pins and banners were won, the standards of health habits, according to Miss Maud A. Brown, Supervisor of Hygiene in the Kansas City schools, were left considerably higher. Miss Brown's report shows, however, that even with almost half of the school children Knights of Health according to the standards set by the Junior Health Crusade plans, one-third of them were ten per cent or more underweight. Here was a test for the ingenuity of organizations interested in the Child Health Movement.

### WEIGHING IN SCHOOLS

The outcome of this discovery has been to demonstrate the value of a plan for regular weighing of children in the schools and for thorough examination of those under normal weight. Reporting to parents as well as children has meant co-operation in follow-up work at home as well as in school. The new Crusade plans include weighing. If as many children participate in this phase of the work as did in the performance of the chores, there will be fewer "slim Susans."

The 112 children of Miss Brown's demonstration group of underweight children gained 231 per cent of the normal gain for children of their age in the nine and a half weeks of the experiment. The 113 children of normal weight, who had the benefit of teaching in health habits and of the Junior Health Crusade but none of the other health service of the demonstration class, gained 72 per cent of the normal rate of gain; and the 109 underweight children under similar conditions actually lost an average of four ounces each. The enormous gain of the demonstration class is attributed to the home co-opera-

tion secured by the visiting nurse and to the application of the "protective feeding" plan developed by Doctor McCollum, of Johns Hopkins University, supplying the deficiencies of the home diet.

Mid-session feedings amounting to of from 1,000 to 1,200 calories or one-half the day's rations, supplementing rather than displacing any of the home feeding, were given to the demonstration group. This food took the form of one to two pints of milk a day, cereal, fruits, soups, cocoa, vegetables, sandwiches and occasional treats of cookies and sweet chocolate.

### A FRANK CONFESSION

The fact that the teaching, as well as the food was taking effect was shown by the letters which the children were asked to write on "Why I am under weight," one of which is given here.

"I am a girl eleven years old. I weigh sixty-two pounds, but I should weigh eighty-two. I have four reasons for being underweight. I am trying to remedy all of them.

The first reason is not enough sleep. I go to bed at nine, but never get to sleep till ten. I get up at half past seven. I always get up feeling tired and sleepy. I should go to bed at seven and get up at seven.

The second reason is not enough milk. I don't like milk and don't drink much. When I do drink it though, I drink it fast and it does me very little good.

The third reason is not enough exercise. When I go home from school at night, instead of playing out of doors I get a book and read. Therefore, I do not get enough exercise.

The fourth and last reason is this, I eat candy and other sweets between meals. I feel like I've had something to eat, and when dinner time comes I am not hungry."

Of the fifteen children who failed to gain normally during the demonstration period, four gained 100 to 340 per cent after four to six weeks in the hospital having tonsil and adenoid operations. These operations were shown to be necessary by the examination of the school physician when their underweight was first determined. All but one of the other failures were traced to contagious diseases or to lack of co-operation in keeping health rules or in removing diseased tonsils.

### FEEDING THE UNDERWEIGHT

The school in which the demonstration was carried on rose from fifty-fifth to third among the Kansas City schools having the fewest underweight children. Figures may sometimes lie, and boys and girls who court the approval of their group have been known to depart from the truth in order to make a favorable showing on health crusade score cards, but fairly accurate scales in the hands of the teacher come very near to telling the truth; and in so far as normal weight and normal gain can be taken as an index of health, the scales furnish an acceptable check on the health habits of these children.

The demonstration has led in Kansas City to the adoption of the

Courtesy of Miss Maud Brown, Supervisor of Hygiene, Polytechnic School, Kansas City, Kansas.

**Daily Tooth-Brush Drill in Cherry Street School.**

plan of placing scales in every grade school and a chart of normal weights in every room. All children ten per cent underweight are thoroughly examined and are given mid-session feedings of milk and graham wafers. The physical education department recommends the children needing extra food, and the domestic science department furnishes the food, much of which is paid for by the Anti-tuberculosis Association. Dental and other surgical and medical treatment is secured for those who need it through the co-operation of the school, parents, and medical agencies.

THE SPREAD OF HEALTH TEACHING

The child health movement is succeeding in the schools because it is flexible and alive in method. It has obtained accurate physical data and achieved the co-operation, and understood the interests of the child. Most of all, all available agencies have worked together enthusiastically in the same cause.

In Minneapolis, nutritional clinics have been started through the co-operation of the University of Minnesota, the Women's Community Council, and the public schools. Cho-Cho, the Health Clown of the Child Health Organization was used as a means of arousing the interest of the community and his visit and message were made the basis of a story and poster competition in which all the schools in the city participated. So great

was the interest aroused that Ha-Ha, a local health clown has been developed and now makes Minneapolis his permanent stamping ground.

In Milwaukee, private and public agencies have enlisted in the cause of child health. The Department of Health, through the co-operation of the Central Council of Social Agencies, the Wisconsin Anti-tuberculosis Association and the City Club secured an increased budget in order to enlarge its staff for medical inspection in the parochial and private, as well as in the public schools of the city. The Red Cross has furnished a dietitian to assist the mothers in improving home diet and has supplied milk and crackers for 1,200 undernourished children in the nutritional classes, as well as extra food in some of the homes. Fresh air rooms have been provided by the Wisconsin Anti-tuberculosis Association; medical and surgical care by the Milwaukee Children's Hospital and the Marquette University Medical School Dispensary; and dental service, by the Milwaukee Dental Society. The Children's Outing Society sends undernourished children on summer outings. The Junior Red Cross has furnished scales in every school for the weighing as a check on the success of the work.

### CHO-CHO CLUBS IN THE SOUTH

In some of the Southern States, through the efforts of a couple of school and district nurses, Cho-Cho performances were put on and afterwards followed up by the formation of Cho-Cho Clubs in the schools. Each club had a president and secretary and standard bearer, who took full charge of the meetings of the club. The secretary kept account of the health habits in his journal, and the critic elected from the class submitted a report at the end of each meeting. Local subjects of interest, such as conditions of the streets, stores, railway station, garbage cans, etc., were discussed, as well as the health habits outlined by the Health Crusade. In order to further the work, weekly columns on health were placed in the local newspaper.

In New York forty schools were invited to participate in a contest at the Grand Central Palace during the week of the Milk and Child Health Campaign in May, 1920. This competition was arranged by the New York State Department of Farms and Markets, Division of Agriculture—co-operating with the Child Health Organization of America and the School of Home Economics, Cornell University. A prize of twenty dollars in gold was given each day to the school making the best presentation of the value of milk. Milk facts were to be presented in talks by children, songs, rhymes, informal plays, drills and posters.

### SIMPLIFIED SCHOOL HYGIENE

Through the efforts of the National Tuberculosis Association, the Red Cross, the Child Health Organization and the Bureau of Edu-

cation, the movement, of which the work in Kansas City, Minneapolis, Milwaukee and New York are only samples, is spreading throughout the country. Literature, exhibits and suggested plans can be purchased from the national organizations, and from the Superintendent of Documents in Washington. It is left, however, to the judgment and ingenuity of local teachers, public health advocates and agencies to work out their application in specific communities, as well as to develop new methods to pass on to others.

The child health movement as developed by interested teachers, parents and medical and social workers and agencies is destined to be one of the greatest constructive as well as preventive forces of our time. Detecting and correcting weaknesess, and forming habits of right living and thinking in children, will promote their greatest possible health at the most critical period of their lives. And these healthy children will mean healthy citizens, capable of putting vigor into the life of the whole nation.

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# The National Child Health Council

## The New Executive

THE National Child Health Council, the recently created national planning body for co-ordinating child health activities, has opened offices in Washington, D. C., with Mr. Courtenay Dinwiddie as executive.

He brings to his important post exceptional qualifications and wide experience. His early experience was in New York City as Secretary of the Department of Bellevue and Allied Hospitals, and as General Executive of the New York City Visiting Committee of the State Charities Aid Association over a period of several years.

In Duluth, Mr. Dinwiddie found opportunity for pioneer work in organization, health legislation and other constructive civic measures The Associated Charities, under his superintendency, secured the passage of a model housing code, a pioneer narcotic drug ordinance and other measures, and developed a system of work for the unemployed, described by Dr. William M. Leiserson as the best in this country.

For a number of years Mr. Dinwiddie was superintendent of the Anti-tuberculosis League of Cincinnati, which has been a leader in the country in the co-ordination of local health programs.

It is hoped that this practical step will be merely a beginning of that common planning, co-ordination of effort and effective team work that has been desired by everyone in the health field for a number of years.

# University of Oregon in Child Welfare

Chester L. Carlisle, M.D.

*United States Public Health Service Director Oregon State Survey of Mental Defect, Delinquency and Dependency*

AT the Second International Congress on Child Welfare held at Washington, D. C., in 1911, under the auspices of the National Congress of Mothers and Parent-Teacher Associations, resolutions were adopted urging the appointment of a child welfare commission in every state. The honorable Oswald West, Governor of Oregon, was the first to respond, appointing a commission January 7, 1913, to serve without any appropriation. Several years prior to this, Oregon had established the first Parents' Educational Bureau. This was maintained and fostered by the Oregon Congress of Mothers. The bureau distributed literature on prenatal influences, infant hygiene, sex physiology, adolescence and other helps for child culture. In school garden work and the home credit system, which encouraged the early development of vocational interests amid home surroundings, Oregon has led other states, its citizens showing by their interest in those kindred activities in the field of child hygiene that they were fully capable of sensing the vast importance of all plans for the betterment of child life. Between the appointment of the first commission in child welfare in 1913, and the appearance of the first biennial report addressed to the governor and the legislative assembly in 1915, twelve meetings were held, but activities in child hygiene had advanced little beyond the form of academic discussion by that time.

In the late summer of 1914, a number of women in Oregon, members of the Federated Women's Clubs, gave marching orders for an advance upon the world-wide community enemies, General Disinterestedness and General Apathy, in the field of child hygiene, these worthies being entrenched behind years of tradition and a heap of carelessness. It was the opening maneuver in developing a general movement for the relief of handicapped children in Oregon whose interests, it was felt, could no longer be neglected either through lack of vision on the part of the public or lack of available facts upon which to formulate adequate legislation on the part of the law makers.

### UNIVERSITY EXTENSION WORK

Eugene, in Lane County, the home of the University of Oregon and the Extension Division of the University, was early the seat of the new movement and when the annual convention of the Federated Clubs was held in the fall of 1914,

the Fortnightly Club of Eugene introduced a resolution demanding legislative aid for the crippled children of the state, which was adopted by the convention and eventually taken to the legislature.

From the legislature they received little encouragement. Finally the Ways and Means Committee suggested that they make an actual experiment along these lines in Lane County. Through the Thursday Charity Club of Eugene, funds were raised to care for a few urgent cases which should serve as concrete examples of what could be done for state-wide child help if adequate support were given the proposed bill. The actual administration of the care and treatment of selected cases of crippled children in Lane County was taken over by the Thursday Charity Club and of twenty-nine cases collected in the first two years only three were ultimately found to be incurable. In the meantime, a law relating to dependent children, based upon the Iowa law, was framed through Dr. Ralph D. Merritt, specialist in social welfare in the Extension Division of the University of Oregon, and successfully passed. To further aid these constructive efforts, a popular exhibit was planned in the shape of poster screens showing the needs of afflicted children dependent upon state funds for the relief of various types of mental and physical handicaps. The exhibit emphasized not only institutional and hospital needs but community plans, including home care, registration and supervision of reported cases, public kindergartens, and a parental educational bureau. Lantern slides depicting these needs and plans were prepared by the Extension Division of the University of Oregon through the co-operation of the Department of Visual Instruction. They proved a very helpful aid in reaching the imagination of the people. The keynote of the exhibit was prevention, the melody was sympathy, and the harmony developed was state-wide consciousness of child citizen needs. The agencies co-operating with the founders of the movment were the state administration, the state institutions, the State Board of Health, the State Board of Education, the University of Oregon, and public spirited officials in Portland. The railroads granted free transportation for the exhibit, which was sent from place to place without even a field agent to accompany it, all the work of displaying it being left to citizen co-operation, with instructions transmitted by letter. This movement in child hygiene, highly significant in itself, was thus made remarkable by the wholly disinterested motives of those who initiated it, planned its development and finally directed the exhibit. Oregon was, in fact, the first state to send out such an exhibit dealing wholly with proposed legislation for better protection of its boys and girls. Following the educational campaign in child hygiene, those interested in the work had the satisfaction of seeing the greater part

of their proposed legislation program become a law in 1917—"to provide medical and surgical treatment for sick and deformed indigent children, under the supervision of the medical department of the University of Oregon. . . ."

### SEARCHING FOR CAUSES

It was while this campaign was in progress that an unexpected note concerning mental defect stole into the harmony of the new opus. At first almost unheeded, later its plaintive tone thoroughly infiltrated the music. Now it was staccato, as when the superintendent of the institution for the deaf remarked that "there were a few feeble-minded." Again, the note became piano; suddenly was lost. The blare of the trumpets sounding "Assembly" drowned all other songs. The great war was on. Local community plans were left unheeded while we listened to the mighty diapason of the nation in arms.

As soon as the result of our war efforts began to grow visible after Armistice Day, Oregon remembering its plans for community betterment decided to investigate the whole problem of dependency through the medium of a survey which had been proposed by the Public Welfare Bureau of Portland. This took form as Senate Joint Resolution No. 28, by which it was resolved: "Whereas, there is in Oregon as in every other state a large number of dependent, defective and delinquent people of whom only a small percentage of the most extreme cases are cared for in institutions and . . . the experience of the draft boards has shown the members of these groups who are at large to be not only a source of weakness, but a positive liability to the state and nation . . and the experience of relief agencies . . . shows that whether in institutions or at large these classes are a constantly increasing drain on the finances, health, morals and every other resource of the state . . . and the University of Oregon has indicated its willingness to serve the state by making a survey . . . in order to determine the extent and cause of said dependency, defectiveness and delinquency and to suggest ways and means for reducing the state's burden from these sources, Be It Resolved that the University of Oregon is hereby granted authority to make such survey and is requested to report the result of its study with recommended legislation to the next regular legislative assembly. . . ."

### A STATE-WIDE SURVEY

Thus, the state-wide survey of the State of Oregon was undertaken by the University at the request of the legislature.

The survey is endeavoring to ascertain the number of individuals in the state showing mental defect, including also those who exhibit abnormal conduct in the form of delinquency and dependency, whether based upon mental, physical or environmental factors. The whole project is being conducted by the Extension Division of the University under the direction of the

United States Public Health Service. The United States Public Health Service has long been engaged in the study and investigation of the problems of mental hygiene. The detail of a director for the Oregon state survey is but an extension of such investigations and was made in response to a request of the University authorities endorsed by the State Board of Health asking for such co-operation. Headquarters have been established in Eugene in offices provided by the University, plans were made for obtaining not only the statistical facts relating to mental defect throughout the state, but to carry forward to the whole state the real meaning of abnormal, inefficient, unsuccessful conduct and the role of mental hygiene in the facts of every day community life and school work.

### PROGRESS WITHOUT FUNDS

The problem of how to reach the ear of nearly one million people scattered over an area covering nearly seventy thousand square miles without the expenditure of a large sum of money for paid investigators working in the thirty-six counties was a difficult one, and at first seemed almost insurmountable, especially as the legislature had specifically stated that "the state will be asked for no appropriation for this purpose". This difficulty which appeared at first to be a very real obstacle to success was made to serve a beneficial part by initiating a plan of state-wide citizen co-operation in gathering the needed facts. Co-operation became a rallying cry for community betterment in terms of mental hygiene. This was accomplished by appealing to the civic interest and patriotic motives of those citizens best fitted to speak for others by reason of their training or official position. Accordingly, preliminary letters were sent to every educator and professonal man in the state explaining the object and scope of the survey. Shortly after this introductory effort a special certificate was issued requesting these citizens to act as special volunteer assistants to the survey. This certificate, carrying the seal of the State and that of the University, with the endorsement of the United States Public Health Service, made its personal appeal on the grounds of "a sense of high citizenship and patriotism," and endeavored to enlist the individual aid of every teacher, physician, clergyman, lawyer and all other citizens who as state, county or municipal officers or as officers and members of well recognized social groups were known to be in touch with the civic and social needs of their respective communities. Included were the county health nurses, now available in over half of the counties of the State. Their close relation with the schools provides one of the most fundamental approaches to the home and hence to community consciousness in all fields of mental, social and child hygiene.

### THE WORK OF VOLUNTARY AIDS

Upon the request of the voluntary aids, special cards were dis-

tributed upon which to record the facts obtained by them. The cards had many captions whereby any combination of social symptoms in any one individual could be recorded. Many interesting side lights on community needs have been unearthed by this method, and each card as it come back to headquarters bears the story of some handicapped life.

It is hard to visualize at times just how much of human grief and hope and fear one of the survey cards contains, but time and again we find evidence of the continuation of the work in child hygiene begun but a few years ago in Lane County. Card after card is seen recording a child who needs some special form of help, and under remarks is found "S. B. 105," indicating the source of expected help: S. B. 105, referring to Senate Bill No. 105, upon which rests the present legal status of child hygiene in the state. And with the cards indicating a child who is dependent upon state aid for relief of a withered leg due to infantile paralysis, or another who is blind and in need of special educational facilities, come many telling of mental defects and feeblemindedness—conditions which are peculiarly of especial social significance.

The problem of dependency, due to simple physical disorder and entailing no especial burden for future generations widens and with the statistical records before us we can glimpse the full meaning of subnormality in conduct and its menace to the welfare of our citizenry when due to developmental brain defect entailing feeblemindedness.

### CITIZENS HELP CITIZENS

The Oregon state survey of mental defect, delinquency and dependency is the first real effort by the interested citizens of a whole state to ascertain the fundamental facts upon which the success of community life depends and to locate and label those citizen elements which make for failure and unwholesome conditions. This survey is then the first state-wide cooperative campaign in mental hygiene ever attempted and is in itself a striking commentary upon the progress of the world and more specifically represents the endeavors of the people of a great state to reach a higher plane of citizen ideals. Following the lessons of the war they are utilizing the failures of antique plans of other days as stepping stones toward the development of a better, kindlier and more scientific system of institutional and community care for the handicapped in these stirring days of reconstruction. The full report will not be available until after the final analysis has been made of all the material gathered from the various counties of the State. This report, transmitted to the legislature by the Surgeon General of the United States Public Health Service, will present the facts on mental defect, delinquency and dependency as found in Oregon's every day community life.

# The Foreign Field

## Provision for the Health of Mothers and Children

### Scotland

What the Government Does

Sir W. Leslie MacKenzie, M.D., F.R.C., P.E., F.R.S.E.

[Extracts from the Carnegie United Kingdom Trust Report on the Physical Welfare of Mothers and Children of Scotland, by Sir W. Leslie MacKenzie, Medical Member of the Local Government Board, (now the Board of Health for Scotland, which corresponds to the English Ministry of Health). Such changes have been made in the text as the difference in terminology between Scotland and America demands.]

NOTIFICATION OF BIRTHS

"IN 1915 Parliament passed, under stress of war conditions, a small Act called the Notification of Births* (Extension) Act, 1915. One purpose of the Act was to make it obligatory all over Scotland for any midwife, or nurse, or doctor, or other person attending a mother at her confinement, to notify to the Medical Officer of Health within thirty-six hours the fact that a birth has taken place. This obligation had been voluntarily undertaken in many localities since 1907, but the Act of 1915 obliged every locality to report its births. The Act has worked smoothly. The great majority of births are systematically notified.

"But the notification of births is only the first step. Experience has shown that the condition of the mother's health before the birth of her child has a direct bearing on the capacity of the child to survive after birth. Hitherto attention has been directed mainly to the needs of the nursing mother. If, however, child life is to be adequately protected, it is equally essential that the expectant mother should have access to advice and treatment.

"Accordingly, the purpose of the new Act is to enable health authorities to make arrangements for attending to the health of expectant mothers, nursing mothers, and young children up to the age of five. The Act thus covers the period of child life for which no provision had been made, securing medical advice and treatment for children of the pre-school age, as well as for expectant and nursing mothers.

"It was only in 1915 that the Midwives (Scotland) Act was passed. A Midwives' Act had been opera-

*Birth Registration. Notification of a birth does not supersede registration of a birth. Notification is intended as the first step in administrative action. Registration is the first step in the preservation of records and the building up of statistical material for general guidance. Notification, it is to be noted, is required within thirty-six hours; registration, within twenty-one days. The difference in time corresponds to the difference in object.

tive in England for some fifteen years—Scotland benefits by the English experience. The Act contains many important provisions, but two of them deserve special attention: First, the power of the local health authority to contribute toward the training of midwives within or without their respective areas; second, the obligation on the health authority to pay a medical fee when, under the established rules, a midwife has to summon a doctor in an emergency, and these "emergencies" are precisely defined. The health authority may afterwards recover the fee from the parent or guardian if he is able to pay it; but the essential point is that the provision of the service does not depend on whether or not the mother is able to pay at the moment.

This Act places in the hands of the health authority an organization of immense power for improving the whole maternity service. It is not merely an act for the registration and training of midwives, itself a sufficiently important purpose; but it is also an administrative act placing on the health authority an obligation to see that the work of the midwives is kept on the highest professional level.

STATE AID FOR HEALTH WORK

"The health authority has the power to arrange maternity centers where expectant mothers and nursing mothers may come for medical advice and treatment; to establish a system of home visitation by health visitors or doctors; to arrange that skilled and prompt attention shall be ensured to every mother requiring it; that hospital accommodation shall be available for dangerous or difficult cases; that schools for mothers and young women may be established in cooperation with the School Boards or Secondary Education Committees.

"The health authority may also establish consultation centers where children up to the age of five may be brought for medical advice and treatment, and from which they may be visited. They may provide or arrange for hospital accommodation for sick children when satisfactory treatment is impossible at home; for convalescent homes for children in impaired health; for day nursery schools wherever these are practicable, and that means in almost every village. They are now, by statute, in a position to furnish every child of school age with a health certificate for presentation on admission to the school. Briefly, the health authority is now able to apply public funds in the provision of organized care of the mother throughout her periods of expectancy and nursing and of the child until it passes from the home to the school.

"In some of these services the health authority will receive government grants to the extent of half of the outlays. The grants will be administered by the Board of Health for Scotland, all grants being made to health authorities alone. No grants are made direct to any institution or agency.

OFFICIAL AND VOLUNTARY AGENCIES

"The health authority has complete freedom in utilizing the services of all voluntary agencies and organizations that may exist or spring up in their district. The new act really provides machinery for bringing together all the organizations that operate in the field of child welfare and maternity service.

"The voluntary agencies may thus find a permanent and suitable basis in the scheme of the health authority. The health authority may thus find power and device in the enthusiasm of the voluntary organizations. The new act is obviously intended to bring the official health authority into one system with all voluntary energies.

DUTIES OF HEALTH VISITORS

"The Health Visitor is a member of the hygienic staff of the Medical Officer of Health, and acts under his immediate direction. From his department she receives the notifications of births from day to day. She visits the home, records the facts on the special card, and indicates the necessary action. She has to attend at the maternity centers, at the child clinics, at the dispensaries, or at the other places where mothers and children are advised or treated. She has to visit the homes to see that the advice and treatment are carried out. She has to direct the mothers where to apply or to what institutions to take their children. She has to advise the center of the cases directed to them. She has to keep the medical officer informed of any incidental disease she discovers or any insanitary condition needing attention.

"In the work of providing for mothers and children the community is in earnest. At the moment, the emotions awakened by the war have risen in a great social wave that will soon reach its height and then recede. But the problems will remain the same. It is then that the technical training of the Health Visitor will tell. Twenty-seven years ago the public health movement came to life in the counties; today, every county has an organized health department. Among the most urgent new developments is the care of the mothers and children. To meet this new development the office of Health Visitor has been created. As, twenty-seven years ago, the general health movement created a career for the Medical Officer, so, today, the special care necessary for the protection of mothers and children must create a career for the Health Visitor."

### Pre-Natal Work in Edinburgh

IN a recent letter Dr. J. W. Ballantyne, of Edinburgh, says:

"You ask about my work. When my time as an ordinary physician to the Royal Maternity Hospital was up, the directors put me in charge of the department which I had built up, the Ante-natal, adding to it beds (apart from those in the hospital itself), and conjoining with it the clinic and beds for the treatment of

all cases of venereal disease in pregnant, parturient and puerperal women. (The non-pregnants are dealt with in the Royal Infirmary and all are under a town scheme for the prevention of venereal diseases.) It is known as the Ante-natal and V. D. Department. I have there an assistant physician, Dr. Francis J. Browne, F. R. C. S., Edinburgh, and for the first time in the history of the hospital, a woman resident, Dr. Janet M. Murray. Last month, April, we passed 250 patients through the clinics and the beds, not so poor for a city with only 320,000 inhabitants. Of course, there is a sister in charge, nurses, etc., and the V. D.'s have all the recent treatment.

"But more than this, we have got now in this country a sub-committee on Child Life Investigation (Ante-natal and Post-natal), which is under the Medical Research Council, a government department. I was put on to this for the ante-natal side, or what you in America call pre-natal, and one of the first things which I proposed and got carried was the appointment to each of the big maternity hospitals, Edinburgh, Glasgow, London, Liverpool, etc., of a research pathologist in ante-natal pathology, who should make post-mortems on all abortion sacs, dead-births, early neo-natal deaths, etc., and furnish material for joint researches (team work) among competent observers. Doctor Browne, to whom I referred above gives all his time to this and to assisting me with the department. He gets a living wage for this; indeed, the Medical Research Council has sufficient, but not lavish, funds at its disposal. Doctor Browne since his appointment in August last, has made between two and three hundred post-mortems.

"I have also persuaded the health authorities here to publish in the 'Scotsman' newspaper every month, the neo-natal mortality in Edinburgh for the month compared with the corresponding month of last year.

"I enclose our new scheme for case taking at the Ante-natal (Pre-natal) Clinic, also one for making of post-mortems on still-births.

"I enclose also a paper on Dental Conditions at the Ante-natal Clinic which appeared last year; another paper on what I have called the Color Scheme in Pregnancy is in the press now (British Medical Journal).

Probably the most important thing I have done recently has been the article on Ante-natal Prevention of Ante-natal and Neo-natal Death for Nelson's Loose-Leaf System of Preventive Medicine which is being published in your own New York. I believe it is to appear soon.

"Do not neglect to read and recommend Doctor Feldman's fine book on the *Principles of Ante-natal and Post-natal Child Physiology* (Longman's, London), published a few days ago. I had the good hap to read the proof sheets."

## England and Wales

### The Ministry of Health

By the Ministry of Health Act, 1919, not only the medical inspection but the treatment of children of pre-school age and of children in the elementary schools is taken over by the Ministry of Health. It is interesting to follow the developments leading to the passage of this Act by which certain duties have been transferred from the Board of Education to the Ministry of Health.

In 1907 an Education Act was passed which made it the duty of the Education Authority to provide for the medical inspection of children entering the public elementary schools, "and the power to make such arrangements as may be sanctioned by the Board of Education for attending to the health and physical condition of the children in the public elementary schools,"—the power, but not the duty to attend to their health.

The medical inspection was begun in 1908, and for ten years the Board of Education received and analyzed reports of these inspections. The weakness of the Act became painfully apparent, for while it was the "duty" of the Education Authority to inspect the children, it was not their duty to correct the defects revealed thereby. While the Act did not give "power" to provide treatment, in many places treatment was provided, although not obligatory.

The 1918 Education Act made it the duty of the Authority to provide treatment as well as medical inspection for children in public elementary schools. This Act also provides medical inspection for children in secondary schools and in continuation schools. For them treatment is not yet a "duty."

A further provision of the 1918 Education Act emphasizes the value of preventive measures, for the "Education Authority is empowered to make arrangements for attending to the health, nourishment and physical welfare of children attending nursery schools." This provision for supervising the health of children of pre-school age was made, because after ten years' work in inspecting children entering the public elementary schools, so many defects were found which should have been corrected before the children reached school age.

### The Central Council

A CENTRAL Council of Infant and Child Welfare was formed in England some time before the organization in the United States of the National Child Health Council. The objects of the British organization are:

"1. To be a link between the national and local organizations.

2. To deal with the child up to 14 years of age.

3. To avoid over-lapping and waste of energy, by co-ordinating the work.

4. The Council is not to undertake any part of the work, each society retaining its own individuality.

5. The Council is to get the money necessary for the work, to stand by, and to interfere only when there is over-lapping and waste.

6. To co-ordinate and regularize the voluntary work."

A CENTRAL INSTITUTE ESTABLISHED

The Lancet has since announced that the Central Council of Infant and Child Welfare has received £40,000 from the Carnegie United Kingdom Trust to be used for a Central Institute of Child Welfare. Since the offer was originally made to the Council, the British Red Cross Society has proposed to erect or purchase a large building to house (a) V. A. D. and Red Cross work; (b) a tuberculosis center; (c) a college of nursing, besides the central welfare work, and the Carnegie Trustees have agreed to this proposal, provided that a distinct wing is used for the Child Welfare Institute. No building has yet been acquired, but the Central Council has obtained temporary premises in which the work of the central institute is being commenced. Progress has been made in regard to a similar central institute in Edinburgh. The Trustees of the Carnegie Trust are evidently being mindful of the injunction to them of the late founder: "Let my Trustees therefore ask themselves from time to time, from age to age, how they can best help man in his glorious ascent onward and upward, and to this end devote the fund."

## Germany

### War's Effect on the Children

RAMSAY SPILLMAN, M. D.

THE children in Germany appear to have shared the lot of the adults in regard to shortage of food. Aside from the direct effect of the food shortage, there has also been an indirect effect on the nursing children, through the milk of the mother—at least more than one German investigator has drawn this conclusion.

Momm and Kraemer (1) in 1917 analyzed the milk of 25 nursing women—most of whom had husbands in the German army—and concluded, at least as far as their unselected patients were concerned, that "the war had in general no influence on the composition of mothers' milk." Yet Kaupe (2) observed in the same year that 35 nursing children under his supervision did not gain as they should have, despite an ample supply of mother's milk for them; and he believes that in view of Momm and Kraemers' findings "we must recognize that alterations in mother's milk which we do not understand have occurred as a result of war conditions. It may seem as if these alterations are determined perhaps less by the nutrition of the mother than by the mental strain which afflicts us all, particularly mothers."

### BREAST FEEDING IN WAR

Whether the period of lactation was diminished by the food shortage has been a matter of controversy. Steinhardt (3) compared the nursing of 201 children in peace time and 300 in war time, and came in 1917 to the following conclusions:

The ability of the mother to nurse was as good as in peace time despite the restricted rations, some nursing their children even better than in times of peace.

The lactation period was not as long in all, but longer in most women, than in peace time.

A harm to the nursing mothers by the war diet was not discovered.

These conclusions, however, were challenged, at least in part, by Grumme (4), who claimed that Steinhardt's own statistics showed that the diminished diet had reduced the average period of lactation. Nevertheless the women of Germany seem to have borne out the tradition that in time of need the child fares better at the breast than at other times.

### THE MYSTERIOUS "VITAMINES"

While non-medical people have come to the point where they speak familiarly of proteins and carbohydrates—terms unfamiliar enough to lay persons only a few years ago—it may still not be out of place to recall that the substances known as vitamines are present in very small amounts in our diet, but nevertheless are essential for our growth and health. If it be further recalled that proteins are combinations of nitrogenous substances known as amino-acids, it is a matter of simple etymology to note that vitamines are, at least in name, substances related to the proteins, and no less essential for life. While little is so far known about their chemistry, it has been found that they are divisible into at least two great groups, the fat-soluble and the water-soluble. The tomato, until recently scorned by nutrition experts because of the few calories it affords, is now looked upon with more respect because it contains water-soluble vitamines. And long before vitamines had ever been thought of, the antiscorbutic content of lime juice was utilized by the British to prevent scurvy in the crews of ships before the days when the diet of the sea-going could be varied by canned vegetables; wherefore a British ship is to this day designated as a lime-juicer. What this has to do with the nutrition of German children will soon be apparent since the fat-soluble vitamines are contained in the fat of milk and consequently in butter.

### ABSENCE OF DEFICIENCY DISEASE

Hamburger (5) has been pleased with the results of enriching the diet of even young children with butter, in his out-patient clinic at the University in Berlin. The reclamation of rancid butter by a special process has permitted this in a land where fats have been scarce. Hamburger discourses at length on vitamines. He regards the extra dietary allowance of the expectant

and nursing mother as the chief reason that the deficiency diseases were not more frequent in these women. Many persons on the regular war diet developed deficiency diseases (the Germans call these *Avitaminosen*), such as late rickets, hunger edema, hemorrhagic diathesis, and tetany; the diseases yielding when the deficient food elements were made good. It is his observation that the children in his clinic were of normal weight at birth. This, he points out, confirms the general belief that the fetus satisfies its demands on the mother regardless of her resources, so long as she can furnish it with the building material it needs. When, however, the complex chemical substances required are not there in the mother's system for the fetus to take, the chemical economy of the latter is disturbed, and after the child is born it has a tendency to deficiency diseases, which is aggravated by the scarcity of proper food for it. Hamburger notes the frequent occurrence of undue fragility of the bones as an illustration, while scurvy and in all likelihood late rickets were probably more common than usual during the food shortage.

### THE EFFECT OF DIRTY MILK

As for the infants fed otherwise than at the breast, scarcely any that came to the clinic got as much as a liter (about a quart) of cow's milk a day; most of them not more than three-quarters of that amount. What milk they got was generally dirty, and because of the delays in transportation it was often soured, which resulted in a frequency of diarrhoea unknown before the war. While Hamburger regards buttermilk as a valuable adjunct in infant feeding, he prefers that it, as well as protein milk, be prepared from milk that is not spontaneously soured beforehand, containing a heterogenous and undesirable content of bacteria. He suggests that the lack of hay for the dairy cows maybe responsible for deficiency diseases in the children who live on the milk. This view has a certain foundation in the development of beri-beri in infants nursing at the breasts of mothers similarly affiicted, the disease in the infant yielding to a change to the breast of a healthy nurse. The mother with beri-beri is the victim af a deficiency disease and the child suffers. Guinea pigs have been observed to develop scurvy when deprived of green food, fresh or dried. Hence it is not a violent stretch of the reason to conceive of a deficient diet in the cow affecting the infant.

Cod-liver oil is particularly rich in vitamines, and Hamburger uses it freely in the nutrition of infants. Its beneficial effect appears to have scientific confirmation in the work of Czerny (6).

### SCURVY IN THE BREAST-FED

If anything in life can be set down as absolutely certain, it is that the breast-fed infant has a much better chance than the artificially fed one. However, Epstein (7), commenting on the statement that "the occurrence of scurvy in

breast-fed children has been doubted" says "closer examination shows this doubt to be unfounded and probably referable to a mere theoretical preconception. Breast feeding generally protects against severe nutritional disturbances, yet these are more frequent than will be admitted. . . . In the series first observed by Barlow there was not a breast-fed child. Later he established its occurrence in breast-fed children, but emphasized that the mothers of these children were themselves suffering from scurvy." Between August, 1917, and the following July Epstein had eleven cases of scurvy, or Barlow's disease, in his clinic at Prague, and two of these were in breast-fed infants. Eleven cases is a very high incidence for his clinic. "The disease," he continues, "shows a preference for artificially fed children in the second half of the first year and in the second year. Before and after this time it is relatively infrequent. However, it has been observed from the fourth month even up to school age."

### HUNGER BLOCKADE

German medical writers have made much of the "hunger blockade," which indeed was alleged to have even justified the unrestricted submarine warfare. They have blamed everybody but the war party for the increased death-rate of German children during the war. Doctor W. T. Vaughan (8) observes, in comment on a particularly vitrolic German medical editorial, that a cause of the food shortage these writers appear to have overlooked was the failure of the Germans to harvest the crops of France as they had planned to do in the fall of 1914. While this comment of Vaughan's is in the nature of a reprisal against an editorial bomb attack, yet according to testimony of Hamburger and others, the nutritional disturbances in German children seem to have been due to disturbed food balance rather than lack of food stuffs and are not comparable in degree to the conditions of extreme starvation occurring in Poland and some parts of Austria. Undoubtedly when she entered the world war Germany counted on a short struggle or a quick conquest of some country able to supply fats and other essentials to a balanced diet.

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# Recent Literature on Mother and Child Welfare

## Book Reviews

**Traveling Publicity Campaigns,** Mary Swain Routzahn. Russell Sage Foundation, New York, 1920. Price, $1.50 net.

The itinerant trader has always been a bearer of news, but we are now becoming familiar with a new kind of peddler, whose pack contains new ideas and useful information, not goods. He goes about the country representing departments of national and state government and private organizations. His trade is in the interest of better citizenship and health, not of profits. The activities of these peddlers have been described in a book issued under the title "Traveling Publicity Campaigns," by Mary Swain Routzahn. The mode of traveling has progressed from wagons to trains and from trains to motor trucks. The wares are helps to better health, better homes, better crops. Accounts of some 130 educational tours by train, auto truck, motor cycle, trolley car, wagon, and even by house boat are drawn up in assembling this review of a comparatively new method of education and publicity.

Accounts of some typical traveling campaigns are combined in this book with suggestions on the various factors that enter into the success of an educational tour. The book is plentifully illustrated with photographs showing how some of the trains and trucks are fitted up with displays and equipment for demonstrations. Some of the technical problems of arranging and displaying exhibits to advantage in car interiors are pointed out and illustrated. The importance of good advance work in arousing interest in the coming of the train or truck is discussed in some detail. The program of events of each stop, the planning of itineraries and finally the follow-up work to make sure that results are obtained are all given considerable space.

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**The American Red Cross Health Center.** A manual distributed through Red Cross Chapters from which copies may be obtained on request. 64 pp. The American Red Cross, Washington, D. C., 1920.

A manual on health centers has recently been issued by the American Red Cross. As defined by the Red Cross, a health center is an institution for health education and the dissemination of information relative to health. A health center should be valuable in bridging the gap between those who know about hygiene and sanitation, and those who do not.

This pamphlet contains many valuable suggestions as to how to organize health centers, how to carry on an active campaign of health education, how to prepare and conduct health exhibits and

demonstrations, how to distribute health literature, how to give instruction through class and club work, and how to conduct growth and nutrition clinics. Many suggestions are included concerning the sources from which supplies of posters and exhibits, playlets, lectures and other literature may be obtained.

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